

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)									
			3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	
36/4	36	Strength, (lbs/ft)	335	298	270	243	220	202	186	173	162	
		Stiffness, G', (10 ³ lbs/in)	9.5	10.8	11.9	12.8	13.7	14.4	15.1	15.6	16.1	
	24	Strength, (lbs/ft)	347	312	284	261	238	220	204	191	180	
		Stiffness, G', (10 ³ lbs/in)	9.5	10.8	11.9	12.9	13.7	14.5	15.1	15.7	16.1	
	12	Strength, (lbs/ft)	384	352	326	305	287	273	259	246	235	
		Stiffness, G', (10 ³ lbs/in)	9.6	10.8	11.9	12.9	13.8	14.6	15.3	15.9	16.4	
	9	Strength, (lbs/ft)	406	376	352	332	315	301	289	279	270	
		Stiffness, G', (10 ³ lbs/in)	9.6	10.8	12.0	13.0	13.9	14.7	15.4	16.0	16.5	
	6	Strength, (lbs/ft)	447	421	399	382	367	354	344	335	326	
		Stiffness, G', (10 ³ lbs/in)	9.6	10.9	12.0	13.0	14.0	14.8	15.6	16.2	16.8	
	36/7	36	Strength, (lbs/ft)	494	434	383	342	310	283	261	242	226
			Stiffness, G', (10 ³ lbs/in)	49.2	50.9	51.7	51.8	51.4	50.6	49.7	48.6	47.4
24		Strength, (lbs/ft)	509	450	401	360	328	301	279	260	244	
		Stiffness, G', (10 ³ lbs/in)	49.3	51.0	51.8	51.9	51.6	50.9	50.0	48.9	47.8	
12		Strength, (lbs/ft)	554	497	452	415	382	356	334	315	299	
		Stiffness, G', (10 ³ lbs/in)	49.5	51.3	52.2	52.4	52.2	51.6	50.8	49.8	48.7	
9		Strength, (lbs/ft)	583	527	483	448	419	392	370	351	335	
		Stiffness, G', (10 ³ lbs/in)	49.6	51.5	52.5	52.7	52.6	52.0	51.3	50.4	49.4	
6		Strength, (lbs/ft)	638	585	544	510	483	460	441	424	408	
		Stiffness, G', (10 ³ lbs/in)	49.9	51.9	53.0	53.4	53.3	52.9	52.3	51.5	50.6	
36/9		36	Strength, (lbs/ft)	772	683	612	548	493	448	411	379	352
			Stiffness, G', (10 ³ lbs/in)	54.0	57.0	59.0	60.1	60.6	60.6	60.3	59.7	58.9
	24	Strength, (lbs/ft)	785	698	627	566	511	467	429	397	370	
		Stiffness, G', (10 ³ lbs/in)	54.1	57.1	59.1	60.2	60.7	60.8	60.5	59.9	59.2	
	12	Strength, (lbs/ft)	824	739	671	616	566	521	484	452	425	
		Stiffness, G', (10 ³ lbs/in)	54.2	57.2	59.3	60.5	61.1	61.3	61.0	60.5	59.8	
	9	Strength, (lbs/ft)	849	766	700	645	600	557	520	488	461	
		Stiffness, G', (10 ³ lbs/in)	54.2	57.3	59.4	60.7	61.4	61.5	61.4	60.9	60.3	
	6	Strength, (lbs/ft)	896	818	755	703	660	623	592	561	534	
		Stiffness, G', (10 ³ lbs/in)	54.4	57.6	59.7	61.1	61.8	62.1	62.0	61.7	61.2	

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
36/4	36	Strength, (lbs/ft)	324	294	268	247	229	214	201	189	179
		Stiffness, G', (10 ³ lbs/in)	17.5	18.7	19.7	20.5	21.1	21.6	22.0	22.3	22.4
	24	Strength, (lbs/ft)	345	318	294	273	255	240	227	215	206
		Stiffness, G', (10 ³ lbs/in)	17.5	18.7	19.7	20.6	21.2	21.8	22.2	22.4	22.6
	12	Strength, (lbs/ft)	404	380	360	343	329	316	305	294	284
		Stiffness, G', (10 ³ lbs/in)	17.6	18.9	19.9	20.8	21.5	22.1	22.6	22.9	23.2
	9	Strength, (lbs/ft)	440	417	399	383	370	358	348	339	331
		Stiffness, G', (10 ³ lbs/in)	17.6	18.9	20.0	21.0	21.7	22.3	22.8	23.2	23.5
	6	Strength, (lbs/ft)	504	485	469	455	444	434	425	417	410
		Stiffness, G', (10 ³ lbs/in)	17.8	19.1	20.2	21.2	22.1	22.8	23.3	23.8	24.2
36/7	36	Strength, (lbs/ft)	461	413	375	344	318	296	277	261	246
		Stiffness, G', (10 ³ lbs/in)	66.4	65.4	64.0	62.3	60.5	58.6	56.7	54.9	53.1
	24	Strength, (lbs/ft)	487	439	401	370	344	322	303	287	272
		Stiffness, G', (10 ³ lbs/in)	66.6	65.7	64.3	62.6	60.9	59.0	57.2	55.4	53.6
	12	Strength, (lbs/ft)	556	515	480	448	422	400	382	365	351
		Stiffness, G', (10 ³ lbs/in)	67.2	66.4	65.1	63.6	61.9	60.2	58.5	56.7	55.1
	9	Strength, (lbs/ft)	601	561	528	500	475	453	434	418	403
		Stiffness, G', (10 ³ lbs/in)	67.6	66.9	65.7	64.3	62.7	61.0	59.3	57.6	56.0
	6	Strength, (lbs/ft)	686	648	617	591	569	550	533	519	506
		Stiffness, G', (10 ³ lbs/in)	68.4	67.8	66.8	65.5	64.0	62.5	61.0	59.4	57.9
36/9	36	Strength, (lbs/ft)	732	661	596	543	498	461	429	401	377
		Stiffness, G', (10 ³ lbs/in)	77.7	77.9	77.5	76.5	75.2	73.7	72.1	70.4	68.7
	24	Strength, (lbs/ft)	754	687	622	569	525	487	455	427	403
		Stiffness, G', (10 ³ lbs/in)	77.8	78.1	77.6	76.7	75.5	74.0	72.4	70.7	69.0
	12	Strength, (lbs/ft)	816	752	698	647	603	566	534	506	482
		Stiffness, G', (10 ³ lbs/in)	78.2	78.5	78.2	77.4	76.2	74.9	73.4	71.8	70.1
	9	Strength, (lbs/ft)	857	794	741	697	655	618	586	558	534
		Stiffness, G', (10 ³ lbs/in)	78.4	78.8	78.6	77.8	76.7	75.4	74.0	72.4	70.9
	6	Strength, (lbs/ft)	934	875	825	783	747	717	690	663	639
		Stiffness, G', (10 ³ lbs/in)	78.9	79.4	79.3	78.7	77.7	76.5	75.2	73.8	72.3

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
36/4	36	Strength, (lbs/ft)	366	339	317	298	282	267	255	244	235
		Stiffness, G', (10 ³ lbs/in)	33.1	33.7	34.0	34.1	34.0	33.8	33.5	33.1	32.6
	24	Strength, (lbs/ft)	409	386	363	344	328	314	302	291	281
		Stiffness, G', (10 ³ lbs/in)	33.2	33.8	34.2	34.3	34.3	34.1	33.8	33.5	33.0
	12	Strength, (lbs/ft)	517	497	480	466	453	442	432	423	415
		Stiffness, G', (10 ³ lbs/in)	33.6	34.4	34.9	35.1	35.2	35.1	34.9	34.7	34.3
	9	Strength, (lbs/ft)	582	564	548	535	523	513	504	496	489
		Stiffness, G', (10 ³ lbs/in)	33.9	34.7	35.3	35.6	35.7	35.7	35.6	35.4	35.2
	6	Strength, (lbs/ft)	693	678	666	655	645	637	630	623	617
		Stiffness, G', (10 ³ lbs/in)	34.4	35.4	36.0	36.5	36.8	36.9	36.9	36.9	36.7
36/7	36	Strength, (lbs/ft)	507	467	434	406	382	361	343	327	313
		Stiffness, G', (10 ³ lbs/in)	86.4	82.8	79.3	75.9	72.7	69.7	66.9	64.3	61.9
	24	Strength, (lbs/ft)	553	514	481	453	429	408	390	374	359
		Stiffness, G', (10 ³ lbs/in)	86.9	83.3	79.8	76.5	73.3	70.4	67.6	65.0	62.6
	12	Strength, (lbs/ft)	685	650	620	592	568	547	529	513	499
		Stiffness, G', (10 ³ lbs/in)	88.2	84.8	81.4	78.2	75.2	72.3	69.6	67.1	64.8
	9	Strength, (lbs/ft)	765	731	703	678	657	638	622	606	592
		Stiffness, G', (10 ³ lbs/in)	89.1	85.8	82.5	79.3	76.4	73.6	71.0	68.5	66.2
	6	Strength, (lbs/ft)	917	886	859	836	817	799	784	771	758
		Stiffness, G', (10 ³ lbs/in)	90.9	87.7	84.6	81.6	78.7	76.1	73.6	71.2	69.0
36/9	36	Strength, (lbs/ft)	801	733	676	627	586	550	519	491	466
		Stiffness, G', (10 ³ lbs/in)	108.5	105.2	101.9	98.5	95.2	92.0	88.9	86.0	83.2
	24	Strength, (lbs/ft)	848	779	722	674	632	596	565	537	513
		Stiffness, G', (10 ³ lbs/in)	108.8	105.6	102.3	99.0	95.7	92.5	89.5	86.6	83.8
	12	Strength, (lbs/ft)	967	910	862	813	772	736	705	677	652
		Stiffness, G', (10 ³ lbs/in)	109.7	106.7	103.5	100.3	97.1	94.1	91.1	88.2	85.5
	9	Strength, (lbs/ft)	1 043	987	940	900	865	829	798	770	745
		Stiffness, G', (10 ³ lbs/in)	110.4	107.4	104.3	101.2	98.1	95.0	92.1	89.4	86.7
	6	Strength, (lbs/ft)	1 185	1 134	1 090	1 052	1 019	990	964	941	921
		Stiffness, G', (10 ³ lbs/in)	111.6	108.8	105.8	102.9	99.9	97.0	94.2	91.5	89.0

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
36/4	36	Strength, (lbs/ft)	409	387	368	351	337	324	313	303	294
		Stiffness, G', (10 ³ lbs/in)	46.6	46.0	45.2	44.3	43.4	42.4	41.4	40.4	39.5
	24	Strength, (lbs/ft)	479	460	441	424	410	397	386	375	366
		Stiffness, G', (10 ³ lbs/in)	46.9	46.4	45.7	44.9	44.0	43.0	42.1	41.1	40.2
	12	Strength, (lbs/ft)	650	634	619	607	596	586	578	570	562
		Stiffness, G', (10 ³ lbs/in)	48.0	47.6	47.1	46.4	45.6	44.8	44.0	43.1	42.3
	9	Strength, (lbs/ft)	748	734	721	710	701	692	684	677	671
		Stiffness, G', (10 ³ lbs/in)	48.7	48.4	48.0	47.4	46.7	46.0	45.2	44.4	43.6
	6	Strength, (lbs/ft)	910	899	890	881	874	867	861	856	851
		Stiffness, G', (10 ³ lbs/in)	50.1	50.0	49.7	49.3	48.7	48.2	47.5	46.9	46.2
36/7	36	Strength, (lbs/ft)	554	521	492	467	446	426	409	394	380
		Stiffness, G', (10 ³ lbs/in)	95.2	90.5	86.2	82.2	78.6	75.3	72.2	69.3	66.7
	24	Strength, (lbs/ft)	627	593	565	540	518	499	482	467	453
		Stiffness, G', (10 ³ lbs/in)	95.9	91.2	87.0	83.1	79.4	76.1	73.1	70.2	67.6
	12	Strength, (lbs/ft)	834	804	779	756	736	717	700	685	671
		Stiffness, G', (10 ³ lbs/in)	98.0	93.4	89.3	85.5	82.0	78.7	75.7	72.9	70.4
	9	Strength, (lbs/ft)	959	931	906	885	866	849	834	821	809
		Stiffness, G', (10 ³ lbs/in)	99.3	94.9	90.8	87.1	83.6	80.4	77.5	74.7	72.2
	6	Strength, (lbs/ft)	1 193	1 167	1 145	1 125	1 108	1 093	1 079	1 067	1 056
		Stiffness, G', (10 ³ lbs/in)	102.0	97.8	93.8	90.2	86.8	83.7	80.9	78.2	75.8
36/9	36	Strength, (lbs/ft)	855	797	747	703	665	632	602	575	551
		Stiffness, G', (10 ³ lbs/in)	125.0	119.9	115.0	110.5	106.2	102.2	98.4	94.9	91.6
	24	Strength, (lbs/ft)	928	869	819	776	738	704	674	648	624
		Stiffness, G', (10 ³ lbs/in)	125.5	120.5	115.7	111.1	106.9	102.9	99.2	95.7	92.4
	12	Strength, (lbs/ft)	1 129	1 079	1 036	994	956	922	892	866	842
		Stiffness, G', (10 ³ lbs/in)	127.2	122.2	117.5	113.1	108.9	105.1	101.4	98.0	94.8
	9	Strength, (lbs/ft)	1 248	1 201	1 159	1 123	1 091	1 062	1 036	1 011	987
		Stiffness, G', (10 ³ lbs/in)	128.2	123.4	118.7	114.4	110.3	106.5	102.9	99.5	96.4
	6	Strength, (lbs/ft)	1 473	1 429	1 391	1 358	1 328	1 302	1 278	1 257	1 216
		Stiffness, G', (10 ³ lbs/in)	130.3	125.6	121.1	116.9	113.0	109.2	105.8	102.5	99.4

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
36/4	36	Strength, (lbs/ft)	335	306	284	267	249	235	223	213	204
		Stiffness, G', (10 ³ lbs/in)	9.5	10.8	11.9	13.0	13.9	14.8	15.5	16.2	16.8
	24	Strength, (lbs/ft)	372	346	326	310	296	285	275	267	258
		Stiffness, G', (10 ³ lbs/in)	9.6	10.9	12.1	13.2	14.2	15.1	15.9	16.7	17.4
	12	Strength, (lbs/ft)	466	447	431	419	409	400	393	386	381
		Stiffness, G', (10 ³ lbs/in)	9.7	11.1	12.4	13.6	14.7	15.8	16.8	17.8	18.7
	9	Strength, (lbs/ft)	514	498	486	476	468	460	454	449	445
		Stiffness, G', (10 ³ lbs/in)	9.8	11.2	12.5	13.8	15.0	16.1	17.2	18.3	19.3
	6	Strength, (lbs/ft)	584	574	566	559	554	549	545	542	539
		Stiffness, G', (10 ³ lbs/in)	9.9	11.3	12.7	14.0	15.3	16.6	17.8	18.9	20.0
36/7	36	Strength, (lbs/ft)	494	443	401	366	339	316	297	282	268
		Stiffness, G', (10 ³ lbs/in)	49.2	51.2	52.3	52.7	52.8	52.5	52.0	51.4	50.7
	24	Strength, (lbs/ft)	539	490	452	421	393	371	352	336	323
		Stiffness, G', (10 ³ lbs/in)	49.9	52.1	53.5	54.3	54.6	54.6	54.4	54.1	53.6
	12	Strength, (lbs/ft)	665	622	587	560	538	519	504	490	479
		Stiffness, G', (10 ³ lbs/in)	51.6	54.5	56.6	58.2	59.3	60.0	60.5	60.8	61.0
	9	Strength, (lbs/ft)	741	701	670	644	624	607	592	580	569
		Stiffness, G', (10 ³ lbs/in)	52.6	55.9	58.4	60.3	61.8	62.9	63.8	64.5	65.0
	6	Strength, (lbs/ft)	873	840	814	793	775	761	749	738	729
		Stiffness, G', (10 ³ lbs/in)	54.2	58.1	61.2	63.8	65.9	67.7	69.2	70.4	71.5
36/9	36	Strength, (lbs/ft)	772	691	627	572	522	482	447	419	394
		Stiffness, G', (10 ³ lbs/in)	54.0	57.2	59.3	60.7	61.5	61.9	61.9	61.6	61.2
	24	Strength, (lbs/ft)	811	733	671	621	577	536	502	473	448
		Stiffness, G', (10 ³ lbs/in)	54.4	57.7	60.0	61.6	62.7	63.3	63.5	63.5	63.3
	12	Strength, (lbs/ft)	919	850	794	749	711	680	652	629	609
		Stiffness, G', (10 ³ lbs/in)	55.3	59.1	62.0	64.1	65.7	66.9	67.7	68.3	68.6
	9	Strength, (lbs/ft)	985	921	869	827	792	763	737	715	696
		Stiffness, G', (10 ³ lbs/in)	55.9	59.9	63.1	65.5	67.5	68.9	70.1	71.0	71.6
	6	Strength, (lbs/ft)	1 099	1 045	1 002	966	936	911	890	871	854
		Stiffness, G', (10 ³ lbs/in)	56.9	61.3	65.0	67.9	70.4	72.4	74.1	75.4	76.6

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
36/4	36	Strength, (lbs/ft)	339	318	299	282	268	256	246	237	229
		Stiffness, G', (10 ³ lbs/in)	17.6	18.9	20.1	21.1	22.0	22.7	23.4	23.9	24.4
	24	Strength, (lbs/ft)	390	370	354	340	329	319	311	302	294
		Stiffness, G', (10 ³ lbs/in)	17.9	19.3	20.6	21.7	22.7	23.6	24.4	25.1	25.8
	12	Strength, (lbs/ft)	516	501	489	478	469	462	455	449	444
		Stiffness, G', (10 ³ lbs/in)	18.5	20.1	21.7	23.1	24.4	25.6	26.7	27.8	28.8
	9	Strength, (lbs/ft)	581	569	559	551	543	537	532	527	523
		Stiffness, G', (10 ³ lbs/in)	18.8	20.5	22.2	23.7	25.1	26.5	27.8	29.0	30.1
	6	Strength, (lbs/ft)	676	668	662	656	652	648	644	641	638
		Stiffness, G', (10 ³ lbs/in)	19.2	21.1	22.9	24.6	26.2	27.8	29.2	30.7	32.0
36/7	36	Strength, (lbs/ft)	480	439	406	380	357	338	322	308	296
		Stiffness, G', (10 ³ lbs/in)	67.3	66.9	66.0	64.9	63.7	62.4	61.1	59.7	58.5
	24	Strength, (lbs/ft)	540	504	472	445	423	404	388	373	361
		Stiffness, G', (10 ³ lbs/in)	69.2	69.1	68.6	67.9	67.0	66.0	64.9	63.9	62.8
	12	Strength, (lbs/ft)	702	670	643	621	602	586	573	561	550
		Stiffness, G', (10 ³ lbs/in)	74.0	75.0	75.4	75.6	75.5	75.3	74.9	74.5	74.1
	9	Strength, (lbs/ft)	801	771	746	726	708	693	681	669	660
		Stiffness, G', (10 ³ lbs/in)	76.8	78.2	79.2	79.8	80.2	80.4	80.5	80.5	80.4
	6	Strength, (lbs/ft)	973	948	928	911	896	884	873	863	855
		Stiffness, G', (10 ³ lbs/in)	81.3	83.7	85.5	86.9	88.1	89.0	89.7	90.3	90.7
36/9	36	Strength, (lbs/ft)	748	687	627	578	538	504	474	449	426
		Stiffness, G', (10 ³ lbs/in)	78.2	78.8	78.8	78.3	77.5	76.4	75.3	74.0	72.7
	24	Strength, (lbs/ft)	801	741	692	644	603	569	540	514	492
		Stiffness, G', (10 ³ lbs/in)	79.4	80.3	80.5	80.3	79.8	79.0	78.1	77.1	76.0
	12	Strength, (lbs/ft)	949	895	850	812	780	752	728	707	688
		Stiffness, G', (10 ³ lbs/in)	82.5	84.1	85.2	85.7	85.9	85.9	85.6	85.3	84.8
	9	Strength, (lbs/ft)	1 039	988	947	912	881	855	833	813	795
		Stiffness, G', (10 ³ lbs/in)	84.3	86.4	87.8	88.8	89.4	89.8	89.9	89.9	89.8
	6	Strength, (lbs/ft)	1 198	1 155	1 120	1 090	1 064	1 041	1 022	1 005	884
		Stiffness, G', (10 ³ lbs/in)	87.4	90.2	92.4	94.1	95.4	96.4	97.2	97.8	98.2

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
36/4	36	Strength, (lbs/ft)	397	376	358	342	328	316	306	297	289
		Stiffness, G', (10 ³ lbs/in)	34.1	35.1	35.9	36.4	36.9	37.1	37.3	37.4	37.5
	24	Strength, (lbs/ft)	468	450	435	422	411	401	393	385	376
		Stiffness, G', (10 ³ lbs/in)	35.3	36.6	37.6	38.5	39.2	39.8	40.2	40.6	40.9
	12	Strength, (lbs/ft)	647	633	622	612	603	596	589	583	578
		Stiffness, G', (10 ³ lbs/in)	38.1	40.0	41.7	43.2	44.5	45.7	46.8	47.7	48.6
	9	Strength, (lbs/ft)	740	729	720	711	704	698	693	688	683
		Stiffness, G', (10 ³ lbs/in)	39.5	41.7	43.6	45.4	47.1	48.6	49.9	51.2	52.4
	6	Strength, (lbs/ft)	875	868	862	857	852	848	845	842	839
		Stiffness, G', (10 ³ lbs/in)	41.5	44.1	46.5	48.7	50.8	52.8	54.6	56.3	57.9
36/7	36	Strength, (lbs/ft)	540	504	475	450	429	410	394	380	367
		Stiffness, G', (10 ³ lbs/in)	89.6	86.8	84.0	81.4	78.9	76.6	74.4	72.3	70.4
	24	Strength, (lbs/ft)	627	592	562	538	516	498	482	467	455
		Stiffness, G', (10 ³ lbs/in)	93.9	91.4	89.0	86.7	84.6	82.5	80.5	78.7	77.0
	12	Strength, (lbs/ft)	851	822	798	777	759	743	729	717	706
		Stiffness, G', (10 ³ lbs/in)	105.0	103.7	102.3	100.9	99.5	98.2	96.9	95.6	94.5
	9	Strength, (lbs/ft)	988	961	939	919	903	888	875	863	853
		Stiffness, G', (10 ³ lbs/in)	111.5	110.8	109.9	109.0	108.1	107.2	106.3	105.4	104.5
	6	Strength, (lbs/ft)	1 229	1 207	1 188	1 171	1 157	1 145	1 134	1 124	1 079
		Stiffness, G', (10 ³ lbs/in)	122.4	122.8	122.9	122.9	122.7	122.5	122.3	122.0	121.7
36/9	36	Strength, (lbs/ft)	834	770	716	671	633	599	570	544	521
		Stiffness, G', (10 ³ lbs/in)	110.7	108.2	105.5	102.7	100.0	97.4	94.9	92.4	90.1
	24	Strength, (lbs/ft)	913	857	804	759	720	686	657	631	608
		Stiffness, G', (10 ³ lbs/in)	113.7	111.5	109.2	106.8	104.4	102.1	99.8	97.6	95.5
	12	Strength, (lbs/ft)	1 123	1 074	1 031	995	963	935	911	889	869
		Stiffness, G', (10 ³ lbs/in)	121.8	120.7	119.3	117.8	116.2	114.6	113.1	111.6	110.1
	9	Strength, (lbs/ft)	1 252	1 206	1 166	1 132	1 103	1 077	1 054	1 033	1 015
		Stiffness, G', (10 ³ lbs/in)	126.6	126.0	125.2	124.2	123.1	122.0	120.8	119.7	118.6
	6	Strength, (lbs/ft)	1 481	1 442	1 409	1 379	1 354	1 331	1 311	1 210	1 079
		Stiffness, G', (10 ³ lbs/in)	134.9	135.4	135.5	135.3	135.1	134.7	134.2	133.7	133.2

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)									
			6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	
36/4	36	Strength, (lbs/ft)	446	426	410	395	383	372	362	353	345	
		Stiffness, G', (10 ³ lbs/in)	49.8	49.9	49.8	49.6	49.4	49.0	48.7	48.2	47.8	
	24	Strength, (lbs/ft)	539	524	510	498	487	478	470	462	454	
		Stiffness, G', (10 ³ lbs/in)	52.9	53.4	53.7	53.9	53.9	53.9	53.9	53.7	53.6	
	12	Strength, (lbs/ft)	772	760	749	740	732	724	718	712	707	
		Stiffness, G', (10 ³ lbs/in)	60.2	61.6	62.9	63.9	64.8	65.6	66.3	66.9	67.4	
	9	Strength, (lbs/ft)	893	883	875	867	860	855	849	844	840	
		Stiffness, G', (10 ³ lbs/in)	63.9	65.8	67.5	69.0	70.4	71.6	72.6	73.6	74.5	
	6	Strength, (lbs/ft)	1 069	1 063	1 057	1 053	1 048	1 044	1 041	1 038	1 035	
		Stiffness, G', (10 ³ lbs/in)	69.5	72.1	74.6	76.8	78.8	80.6	82.4	83.9	85.4	
	36/7	36	Strength, (lbs/ft)	591	560	534	511	491	474	458	444	432
			Stiffness, G', (10 ³ lbs/in)	101.4	97.5	94.0	90.8	87.8	85.1	82.6	80.2	78.1
24		Strength, (lbs/ft)	700	669	643	620	601	583	567	553	541	
		Stiffness, G', (10 ³ lbs/in)	107.9	104.4	101.2	98.3	95.5	93.0	90.7	88.6	86.6	
12		Strength, (lbs/ft)	991	965	943	924	906	891	878	866	855	
		Stiffness, G', (10 ³ lbs/in)	125.5	123.0	120.6	118.4	116.4	114.5	112.7	111.1	109.5	
9		Strength, (lbs/ft)	1 166	1 142	1 122	1 104	1 088	1 074	1 061	1 050	1 040	
		Stiffness, G', (10 ³ lbs/in)	135.9	133.9	132.0	130.3	128.6	127.1	125.6	124.3	123.0	
6		Strength, (lbs/ft)	1 476	1 456	1 439	1 424	1 410	1 398	1 388	1 347	1 216	
		Stiffness, G', (10 ³ lbs/in)	153.9	152.8	151.8	150.8	149.9	148.9	148.1	147.3	146.5	
36/9		36	Strength, (lbs/ft)	892	836	788	747	711	679	651	625	602
			Stiffness, G', (10 ³ lbs/in)	129.8	125.4	121.3	117.4	113.8	110.4	107.2	104.2	101.4
	24	Strength, (lbs/ft)	1 001	945	898	856	820	788	760	734	712	
		Stiffness, G', (10 ³ lbs/in)	134.9	130.9	127.1	123.5	120.2	117.0	114.1	111.3	108.7	
	12	Strength, (lbs/ft)	1 279	1 234	1 195	1 161	1 130	1 103	1 079	1 057	1 038	
		Stiffness, G', (10 ³ lbs/in)	148.8	145.8	142.9	140.2	137.6	135.1	132.8	130.6	128.6	
	9	Strength, (lbs/ft)	1 447	1 405	1 369	1 337	1 308	1 283	1 260	1 240	1 216	
		Stiffness, G', (10 ³ lbs/in)	157.1	154.7	152.3	150.1	147.9	145.9	143.9	142.1	140.3	
	6	Strength, (lbs/ft)	1 748	1 713	1 681	1 654	1 629	1 608	1 501	1 347	1 216	
		Stiffness, G', (10 ³ lbs/in)	171.7	170.3	168.8	167.4	166.0	164.7	163.4	162.2	161.0	

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/3	36	Strength, (lbs/ft)	129	124	119	115	111	107	104	101	98
		Stiffness, G', (10 ³ lbs/in)	8.7	8.8	8.9	9.0	9.0	9.0	9.0	9.0	9.0
	24	Strength, (lbs/ft)	148	142	137	133	129	125	122	119	116
		Stiffness, G', (10 ³ lbs/in)	8.8	8.9	9.0	9.1	9.1	9.2	9.2	9.2	9.1
	12	Strength, (lbs/ft)	202	197	192	187	183	180	177	174	171
		Stiffness, G', (10 ³ lbs/in)	9.0	9.2	9.3	9.4	9.5	9.6	9.6	9.7	9.7
	9	Strength, (lbs/ft)	238	233	228	224	220	216	213	210	207
		Stiffness, G', (10 ³ lbs/in)	9.2	9.3	9.5	9.6	9.7	9.8	9.9	10.0	10.0
	6	Strength, (lbs/ft)	302	297	293	288	285	281	278	275	273
		Stiffness, G', (10 ³ lbs/in)	9.4	9.7	9.8	10.0	10.2	10.3	10.4	10.5	10.6
24/5	36	Strength, (lbs/ft)	161	154	147	141	136	131	127	123	119
		Stiffness, G', (10 ³ lbs/in)	26.6	25.6	24.6	23.8	22.9	22.2	21.4	20.8	20.1
	24	Strength, (lbs/ft)	179	172	165	159	154	149	145	141	137
		Stiffness, G', (10 ³ lbs/in)	26.9	26.0	25.0	24.2	23.4	22.6	21.9	21.2	20.6
	12	Strength, (lbs/ft)	234	226	220	214	209	204	199	196	192
		Stiffness, G', (10 ³ lbs/in)	28.0	27.1	26.2	25.3	24.6	23.8	23.1	22.5	21.9
	9	Strength, (lbs/ft)	270	263	256	250	245	240	236	232	228
		Stiffness, G', (10 ³ lbs/in)	28.7	27.8	26.9	26.1	25.4	24.6	24.0	23.3	22.8
	6	Strength, (lbs/ft)	343	335	329	323	318	313	308	305	301
		Stiffness, G', (10 ³ lbs/in)	30.0	29.2	28.4	27.6	26.9	26.2	25.6	25.0	24.4
24/7	36	Strength, (lbs/ft)	268	254	242	231	222	213	205	197	191
		Stiffness, G', (10 ³ lbs/in)	37.7	36.6	35.5	34.5	33.5	32.5	31.6	30.7	29.9
	24	Strength, (lbs/ft)	286	273	260	250	240	231	223	216	209
		Stiffness, G', (10 ³ lbs/in)	38.0	36.9	35.8	34.8	33.8	32.8	31.9	31.1	30.2
	12	Strength, (lbs/ft)	341	327	315	304	294	285	277	270	263
		Stiffness, G', (10 ³ lbs/in)	38.8	37.7	36.7	35.7	34.8	33.8	33.0	32.1	31.3
	9	Strength, (lbs/ft)	377	363	351	340	331	322	314	306	300
		Stiffness, G', (10 ³ lbs/in)	39.3	38.3	37.3	36.3	35.4	34.5	33.6	32.8	32.0
	6	Strength, (lbs/ft)	450	436	424	413	403	394	386	379	372
		Stiffness, G', (10 ³ lbs/in)	40.3	39.3	38.4	37.5	36.6	35.7	34.9	34.2	33.4

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/3	36	Strength, (lbs/ft)	148	143	138	134	131	127	124	121	118
		Stiffness, G', (10 ³ lbs/in)	11.7	11.7	11.6	11.6	11.5	11.4	11.2	11.1	11.0
	24	Strength, (lbs/ft)	174	169	165	160	157	153	150	147	145
		Stiffness, G', (10 ³ lbs/in)	11.9	11.9	11.8	11.8	11.7	11.6	11.5	11.4	11.3
	12	Strength, (lbs/ft)	253	248	243	239	235	232	229	226	223
		Stiffness, G', (10 ³ lbs/in)	12.4	12.4	12.4	12.4	12.4	12.3	12.3	12.2	12.1
	9	Strength, (lbs/ft)	305	300	295	291	287	284	281	278	275
		Stiffness, G', (10 ³ lbs/in)	12.7	12.7	12.8	12.8	12.8	12.8	12.8	12.7	12.7
	6	Strength, (lbs/ft)	388	383	379	375	372	369	366	363	361
		Stiffness, G', (10 ³ lbs/in)	13.2	13.4	13.5	13.5	13.6	13.6	13.7	13.7	13.7
24/5	36	Strength, (lbs/ft)	181	175	168	163	158	153	149	145	142
		Stiffness, G', (10 ³ lbs/in)	28.1	27.0	26.0	25.1	24.2	23.4	22.6	21.9	21.3
	24	Strength, (lbs/ft)	208	201	195	189	184	179	175	171	168
		Stiffness, G', (10 ³ lbs/in)	28.5	27.5	26.5	25.5	24.7	23.9	23.1	22.4	21.8
	12	Strength, (lbs/ft)	286	279	273	268	262	258	254	250	246
		Stiffness, G', (10 ³ lbs/in)	29.9	28.8	27.9	27.0	26.2	25.4	24.7	24.0	23.4
	9	Strength, (lbs/ft)	338	332	325	320	315	310	306	302	298
		Stiffness, G', (10 ³ lbs/in)	30.8	29.8	28.8	27.9	27.1	26.4	25.7	25.0	24.4
	6	Strength, (lbs/ft)	443	436	430	424	419	415	411	407	403
		Stiffness, G', (10 ³ lbs/in)	32.5	31.5	30.6	29.8	29.0	28.3	27.6	27.0	26.4
24/7	36	Strength, (lbs/ft)	295	282	271	260	251	242	234	227	220
		Stiffness, G', (10 ³ lbs/in)	41.2	39.8	38.5	37.3	36.1	35.1	34.0	33.1	32.1
	24	Strength, (lbs/ft)	321	308	297	286	277	268	260	253	246
		Stiffness, G', (10 ³ lbs/in)	41.5	40.2	38.9	37.7	36.6	35.5	34.5	33.5	32.6
	12	Strength, (lbs/ft)	400	387	375	365	355	347	339	332	325
		Stiffness, G', (10 ³ lbs/in)	42.6	41.3	40.1	38.9	37.8	36.7	35.8	34.8	33.9
	9	Strength, (lbs/ft)	452	439	428	417	408	399	391	384	377
		Stiffness, G', (10 ³ lbs/in)	43.3	42.0	40.8	39.7	38.6	37.6	36.6	35.7	34.8
	6	Strength, (lbs/ft)	557	544	532	522	512	504	496	489	482
		Stiffness, G', (10 ³ lbs/in)	44.7	43.5	42.3	41.2	40.2	39.2	38.2	37.4	36.5

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
24/3	36	Strength, (lbs/ft)	199	194	190	185	181	178	175	172	169
		Stiffness, G', (10 ³ lbs/in)	16.4	16.1	15.8	15.5	15.2	14.9	14.6	14.4	14.1
	24	Strength, (lbs/ft)	246	241	236	232	228	224	221	218	215
		Stiffness, G', (10 ³ lbs/in)	16.8	16.5	16.2	15.9	15.7	15.4	15.1	14.8	14.6
	12	Strength, (lbs/ft)	385	380	376	371	367	364	361	358	355
		Stiffness, G', (10 ³ lbs/in)	17.8	17.6	17.4	17.1	16.9	16.7	16.4	16.2	16.0
	9	Strength, (lbs/ft)	462	457	453	449	445	442	438	436	433
		Stiffness, G', (10 ³ lbs/in)	18.5	18.3	18.1	17.9	17.7	17.5	17.3	17.1	16.9
	6	Strength, (lbs/ft)	595	591	588	584	581	578	575	573	571
		Stiffness, G', (10 ³ lbs/in)	19.7	19.6	19.5	19.3	19.2	19.1	18.9	18.8	18.6
24/5	36	Strength, (lbs/ft)	239	232	226	220	214	210	205	201	197
		Stiffness, G', (10 ³ lbs/in)	31.2	30.0	28.9	27.9	26.9	26.1	25.2	24.5	23.7
	24	Strength, (lbs/ft)	285	278	272	266	261	256	252	247	244
		Stiffness, G', (10 ³ lbs/in)	31.8	30.6	29.5	28.5	27.6	26.7	25.9	25.1	24.4
	12	Strength, (lbs/ft)	425	418	412	406	400	396	391	387	383
		Stiffness, G', (10 ³ lbs/in)	33.6	32.4	31.4	30.4	29.5	28.6	27.8	27.0	26.3
	9	Strength, (lbs/ft)	518	511	505	499	493	489	484	480	476
		Stiffness, G', (10 ³ lbs/in)	34.8	33.6	32.6	31.6	30.7	29.8	29.1	28.3	27.6
	6	Strength, (lbs/ft)	696	689	682	676	671	666	661	657	653
		Stiffness, G', (10 ³ lbs/in)	37.1	36.0	34.9	34.0	33.1	32.3	31.5	30.8	30.1
24/7	36	Strength, (lbs/ft)	374	360	348	337	327	317	309	301	293
		Stiffness, G', (10 ³ lbs/in)	47.2	45.5	44.0	42.5	41.2	39.9	38.7	37.6	36.5
	24	Strength, (lbs/ft)	420	407	394	383	373	364	355	347	340
		Stiffness, G', (10 ³ lbs/in)	47.7	46.0	44.5	43.1	41.7	40.5	39.3	38.1	37.1
	12	Strength, (lbs/ft)	560	546	534	523	513	503	495	487	479
		Stiffness, G', (10 ³ lbs/in)	49.2	47.6	46.1	44.7	43.4	42.1	41.0	39.9	38.8
	9	Strength, (lbs/ft)	653	639	627	616	606	596	588	580	572
		Stiffness, G', (10 ³ lbs/in)	50.2	48.6	47.1	45.7	44.4	43.2	42.1	41.0	40.0
	6	Strength, (lbs/ft)	839	825	813	802	792	782	774	766	758
		Stiffness, G', (10 ³ lbs/in)	52.1	50.6	49.1	47.8	46.5	45.4	44.2	43.2	42.2

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
24/3	36	Strength, (lbs/ft)	256	251	247	243	239	236	232	229	227
		Stiffness, G', (10 ³ lbs/in)	19.5	19.0	18.5	18.1	17.7	17.2	16.8	16.5	16.1
	24	Strength, (lbs/ft)	329	324	320	316	312	308	305	302	299
		Stiffness, G', (10 ³ lbs/in)	20.0	19.6	19.1	18.7	18.3	17.9	17.5	17.1	16.8
	12	Strength, (lbs/ft)	534	529	525	521	517	513	510	507	504
		Stiffness, G', (10 ³ lbs/in)	21.6	21.2	20.8	20.4	20.0	19.7	19.3	19.0	18.7
	9	Strength, (lbs/ft)	645	641	637	633	630	627	624	621	618
		Stiffness, G', (10 ³ lbs/in)	22.6	22.2	21.9	21.5	21.2	20.8	20.5	20.2	19.9
	6	Strength, (lbs/ft)	831	828	825	822	819	817	815	812	810
		Stiffness, G', (10 ³ lbs/in)	24.5	24.2	23.9	23.6	23.4	23.1	22.8	22.5	22.3
24/5	36	Strength, (lbs/ft)	301	294	288	282	277	272	267	263	259
		Stiffness, G', (10 ³ lbs/in)	33.0	31.8	30.7	29.6	28.7	27.8	26.9	26.1	25.4
	24	Strength, (lbs/ft)	373	367	360	355	349	345	340	336	332
		Stiffness, G', (10 ³ lbs/in)	33.7	32.5	31.4	30.4	29.4	28.5	27.7	26.9	26.2
	12	Strength, (lbs/ft)	591	585	578	573	567	563	558	554	550
		Stiffness, G', (10 ³ lbs/in)	35.8	34.7	33.6	32.6	31.6	30.8	29.9	29.2	28.4
	9	Strength, (lbs/ft)	737	730	724	718	713	708	703	699	694
		Stiffness, G', (10 ³ lbs/in)	37.2	36.1	35.0	34.0	33.1	32.2	31.4	30.6	29.9
	6	Strength, (lbs/ft)	992	985	979	973	968	963	959	955	951
		Stiffness, G', (10 ³ lbs/in)	40.0	38.9	37.8	36.9	36.0	35.1	34.3	33.6	32.9
24/7	36	Strength, (lbs/ft)	452	438	426	415	405	395	386	378	370
		Stiffness, G', (10 ³ lbs/in)	50.7	48.9	47.3	45.8	44.4	43.0	41.8	40.6	39.4
	24	Strength, (lbs/ft)	524	511	499	488	477	468	459	450	443
		Stiffness, G', (10 ³ lbs/in)	51.3	49.6	47.9	46.4	45.0	43.7	42.4	41.3	40.1
	12	Strength, (lbs/ft)	742	729	717	706	695	686	677	668	661
		Stiffness, G', (10 ³ lbs/in)	53.2	51.5	49.9	48.4	47.0	45.7	44.5	43.3	42.2
	9	Strength, (lbs/ft)	888	874	862	851	841	831	822	814	806
		Stiffness, G', (10 ³ lbs/in)	54.4	52.7	51.2	49.7	48.3	47.0	45.8	44.7	43.6
	6	Strength, (lbs/ft)	1 168	1 154	1 142	1 131	1 120	1 110	1 101	1 093	1 085
		Stiffness, G', (10 ³ lbs/in)	56.8	55.2	53.7	52.2	50.9	49.6	48.4	47.3	46.3

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/3	36	Strength, (lbs/ft)	175	171	168	165	162	159	157	155	153
		Stiffness, G', (10 ³ lbs/in)	9.5	9.8	10.0	10.2	10.4	10.6	10.8	10.9	11.0
	24	Strength, (lbs/ft)	230	226	222	219	216	214	212	209	208
		Stiffness, G', (10 ³ lbs/in)	10.0	10.4	10.7	11.0	11.2	11.5	11.7	11.9	12.1
	12	Strength, (lbs/ft)	362	359	355	353	350	348	346	344	342
		Stiffness, G', (10 ³ lbs/in)	11.0	11.5	11.9	12.3	12.8	13.1	13.5	13.9	14.2
	9	Strength, (lbs/ft)	429	426	424	422	420	418	416	414	413
		Stiffness, G', (10 ³ lbs/in)	11.4	11.9	12.4	12.9	13.4	13.8	14.3	14.7	15.1
	6	Strength, (lbs/ft)	529	527	525	524	522	521	520	519	518
		Stiffness, G', (10 ³ lbs/in)	12.0	12.5	13.1	13.7	14.2	14.7	15.2	15.7	16.2
24/5	36	Strength, (lbs/ft)	206	201	196	191	187	183	180	177	174
		Stiffness, G', (10 ³ lbs/in)	30.4	29.7	29.1	28.4	27.9	27.3	26.8	26.3	25.9
	24	Strength, (lbs/ft)	261	255	250	246	242	238	234	231	229
		Stiffness, G', (10 ³ lbs/in)	33.6	33.0	32.4	31.9	31.4	30.9	30.5	30.1	29.7
	12	Strength, (lbs/ft)	425	419	414	410	405	401	398	394	391
		Stiffness, G', (10 ³ lbs/in)	41.6	41.3	41.0	40.8	40.5	40.3	40.1	39.8	39.6
	9	Strength, (lbs/ft)	519	514	509	504	500	496	493	490	487
		Stiffness, G', (10 ³ lbs/in)	46.0	45.9	45.8	45.7	45.6	45.5	45.4	45.2	45.1
	6	Strength, (lbs/ft)	687	682	678	674	671	667	665	662	659
		Stiffness, G', (10 ³ lbs/in)	53.3	53.5	53.6	53.8	53.9	54.0	54.1	54.2	54.2
24/7	36	Strength, (lbs/ft)	314	302	291	281	273	265	258	251	245
		Stiffness, G', (10 ³ lbs/in)	40.6	39.8	38.9	38.1	37.4	36.6	35.9	35.2	34.6
	24	Strength, (lbs/ft)	368	356	346	336	327	320	312	306	300
		Stiffness, G', (10 ³ lbs/in)	43.0	42.3	41.5	40.9	40.2	39.6	39.0	38.4	37.8
	12	Strength, (lbs/ft)	532	520	509	500	491	483	476	470	464
		Stiffness, G', (10 ³ lbs/in)	49.1	48.8	48.4	48.0	47.6	47.2	46.9	46.5	46.1
	9	Strength, (lbs/ft)	639	627	617	607	598	590	583	576	570
		Stiffness, G', (10 ³ lbs/in)	52.6	52.4	52.2	52.0	51.8	51.5	51.3	51.1	50.9
	6	Strength, (lbs/ft)	811	800	791	782	775	768	761	755	750
		Stiffness, G', (10 ³ lbs/in)	58.4	58.6	58.7	58.7	58.8	58.8	58.8	58.8	58.7

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/3	36	Strength, (lbs/ft)	201	197	194	191	188	185	183	181	179
		Stiffness, G', (10 ³ lbs/in)	13.5	13.7	13.9	14.0	14.1	14.3	14.4	14.4	14.5
	24	Strength, (lbs/ft)	266	262	259	256	253	251	249	246	245
		Stiffness, G', (10 ³ lbs/in)	14.6	14.9	15.2	15.4	15.7	15.9	16.1	16.3	16.4
	12	Strength, (lbs/ft)	426	422	419	417	414	412	410	408	406
		Stiffness, G', (10 ³ lbs/in)	16.8	17.4	17.8	18.3	18.7	19.1	19.5	19.9	20.3
	9	Strength, (lbs/ft)	507	505	502	500	498	496	494	493	491
		Stiffness, G', (10 ³ lbs/in)	17.8	18.4	19.0	19.5	20.0	20.6	21.0	21.5	22.0
	6	Strength, (lbs/ft)	628	626	625	623	622	621	620	619	618
		Stiffness, G', (10 ³ lbs/in)	19.1	19.8	20.5	21.2	21.8	22.4	23.0	23.6	24.2
24/5	36	Strength, (lbs/ft)	234	229	224	219	215	211	208	205	202
		Stiffness, G', (10 ³ lbs/in)	33.3	32.5	31.8	31.1	30.5	29.8	29.3	28.8	28.3
	24	Strength, (lbs/ft)	299	294	289	285	281	277	274	271	268
		Stiffness, G', (10 ³ lbs/in)	37.4	36.7	36.0	35.4	34.9	34.3	33.8	33.3	32.9
	12	Strength, (lbs/ft)	496	490	485	481	476	472	469	465	462
		Stiffness, G', (10 ³ lbs/in)	48.0	47.6	47.1	46.7	46.4	46.0	45.7	45.4	45.1
	9	Strength, (lbs/ft)	609	604	599	594	590	587	583	580	577
		Stiffness, G', (10 ³ lbs/in)	54.0	53.7	53.4	53.2	52.9	52.7	52.4	52.2	52.0
	6	Strength, (lbs/ft)	812	807	803	799	796	793	790	787	785
		Stiffness, G', (10 ³ lbs/in)	64.0	64.0	64.0	64.0	63.9	63.9	63.8	63.8	63.7
24/7	36	Strength, (lbs/ft)	348	336	326	317	308	300	293	287	281
		Stiffness, G', (10 ³ lbs/in)	45.4	44.3	43.2	42.3	41.4	40.5	39.7	38.9	38.1
	24	Strength, (lbs/ft)	413	402	391	382	374	366	359	352	346
		Stiffness, G', (10 ³ lbs/in)	48.6	47.7	46.7	45.9	45.0	44.2	43.5	42.8	42.1
	12	Strength, (lbs/ft)	610	598	588	579	570	563	556	549	543
		Stiffness, G', (10 ³ lbs/in)	57.2	56.6	56.0	55.4	54.8	54.2	53.7	53.2	52.7
	9	Strength, (lbs/ft)	738	726	716	707	698	690	683	676	670
		Stiffness, G', (10 ³ lbs/in)	62.2	61.7	61.3	60.8	60.4	60.0	59.6	59.2	58.8
	6	Strength, (lbs/ft)	947	937	927	919	911	904	898	892	886
		Stiffness, G', (10 ³ lbs/in)	70.6	70.5	70.3	70.1	69.9	69.7	69.6	69.4	69.2

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
24/3	36	Strength, (lbs/ft)	257	253	249	246	243	240	238	235	233
		Stiffness, G', (10 ³ lbs/in)	20.4	20.5	20.5	20.4	20.4	20.4	20.4	20.3	20.3
	24	Strength, (lbs/ft)	344	340	336	333	330	327	325	323	320
		Stiffness, G', (10 ³ lbs/in)	23.0	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.8
	12	Strength, (lbs/ft)	556	553	550	547	544	542	539	537	535
		Stiffness, G', (10 ³ lbs/in)	28.5	29.0	29.5	29.9	30.3	30.7	31.1	31.4	31.7
	9	Strength, (lbs/ft)	666	663	661	658	656	654	652	650	649
		Stiffness, G', (10 ³ lbs/in)	31.1	31.8	32.4	33.0	33.5	34.1	34.6	35.0	35.5
	6	Strength, (lbs/ft)	828	826	824	822	821	820	818	817	816
		Stiffness, G', (10 ³ lbs/in)	34.8	35.7	36.5	37.3	38.1	38.9	39.6	40.3	41.0
24/5	36	Strength, (lbs/ft)	296	290	285	280	276	272	268	265	261
		Stiffness, G', (10 ³ lbs/in)	38.5	37.6	36.7	35.9	35.2	34.5	33.9	33.2	32.7
	24	Strength, (lbs/ft)	384	378	372	368	363	359	355	352	349
		Stiffness, G', (10 ³ lbs/in)	44.0	43.1	42.3	41.6	40.9	40.3	39.7	39.1	38.6
	12	Strength, (lbs/ft)	644	638	633	627	623	618	614	610	607
		Stiffness, G', (10 ³ lbs/in)	58.5	57.9	57.3	56.7	56.2	55.7	55.3	54.8	54.4
	9	Strength, (lbs/ft)	795	790	784	780	775	771	767	764	760
		Stiffness, G', (10 ³ lbs/in)	67.0	66.5	66.0	65.5	65.1	64.7	64.4	64.0	63.7
	6	Strength, (lbs/ft)	1 067	1 062	1 057	1 053	1 049	1 046	1 042	1 039	1 037
		Stiffness, G', (10 ³ lbs/in)	81.6	81.3	81.1	80.8	80.6	80.3	80.1	79.9	79.7
24/7	36	Strength, (lbs/ft)	431	419	407	397	388	379	372	364	357
		Stiffness, G', (10 ³ lbs/in)	53.4	52.0	50.7	49.5	48.3	47.3	46.3	45.3	44.5
	24	Strength, (lbs/ft)	518	506	495	485	475	467	459	452	445
		Stiffness, G', (10 ³ lbs/in)	58.0	56.7	55.5	54.4	53.3	52.3	51.4	50.5	49.7
	12	Strength, (lbs/ft)	780	768	757	747	738	729	721	714	707
		Stiffness, G', (10 ³ lbs/in)	70.5	69.5	68.5	67.6	66.8	66.0	65.3	64.6	63.9
	9	Strength, (lbs/ft)	950	938	926	916	907	898	890	882	875
		Stiffness, G', (10 ³ lbs/in)	77.8	77.0	76.2	75.4	74.7	74.1	73.5	72.9	72.3
	6	Strength, (lbs/ft)	1 231	1 220	1 210	1 201	1 192	1 184	1 177	1 170	1 164
		Stiffness, G', (10 ³ lbs/in)	90.6	90.0	89.5	89.0	88.5	88.1	87.7	87.3	86.9

3.0 in. deck - 24 in. wide - 6 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
24/3	36	Strength, (lbs/ft)	309	306	302	299	295	293	290	287	285
		Stiffness, G', (10 ³ lbs/in)	26.0	25.8	25.7	25.5	25.3	25.2	25.0	24.9	24.7
	24	Strength, (lbs/ft)	419	415	411	408	405	402	399	397	394
		Stiffness, G', (10 ³ lbs/in)	30.1	30.1	30.1	30.1	30.0	30.0	29.9	29.9	29.8
	12	Strength, (lbs/ft)	684	680	677	674	671	668	666	664	662
		Stiffness, G', (10 ³ lbs/in)	39.8	40.2	40.5	40.8	41.1	41.4	41.6	41.8	42.0
	9	Strength, (lbs/ft)	821	818	816	813	811	809	807	805	803
		Stiffness, G', (10 ³ lbs/in)	44.7	45.2	45.8	46.2	46.7	47.1	47.5	47.9	48.3
	6	Strength, (lbs/ft)	1 023	1 021	1 019	1 018	1 016	1 015	1 014	1 012	1 011
		Stiffness, G', (10 ³ lbs/in)	51.9	52.8	53.6	54.4	55.2	55.9	56.6	57.2	57.9
24/5	36	Strength, (lbs/ft)	354	348	343	338	333	329	325	321	318
		Stiffness, G', (10 ³ lbs/in)	42.1	41.2	40.3	39.4	38.7	38.0	37.3	36.7	36.1
	24	Strength, (lbs/ft)	463	457	452	447	442	438	434	430	427
		Stiffness, G', (10 ³ lbs/in)	48.7	47.8	47.0	46.2	45.5	44.8	44.2	43.6	43.0
	12	Strength, (lbs/ft)	788	781	775	770	765	760	756	752	749
		Stiffness, G', (10 ³ lbs/in)	66.6	65.9	65.2	64.6	64.0	63.5	62.9	62.5	62.0
	9	Strength, (lbs/ft)	977	971	965	960	956	951	947	944	940
		Stiffness, G', (10 ³ lbs/in)	77.2	76.6	76.1	75.5	75.0	74.5	74.1	73.7	73.3
	6	Strength, (lbs/ft)	1 316	1 311	1 307	1 302	1 298	1 295	1 291	1 288	1 285
		Stiffness, G', (10 ³ lbs/in)	95.9	95.5	95.1	94.7	94.3	94.0	93.7	93.4	93.1
24/7	36	Strength, (lbs/ft)	505	493	481	471	461	452	444	436	428
		Stiffness, G', (10 ³ lbs/in)	58.7	57.2	55.8	54.5	53.3	52.2	51.1	50.1	49.1
	24	Strength, (lbs/ft)	614	602	590	580	570	561	553	545	538
		Stiffness, G', (10 ³ lbs/in)	64.5	63.1	61.8	60.6	59.4	58.3	57.3	56.4	55.5
	12	Strength, (lbs/ft)	942	930	918	908	898	889	881	873	865
		Stiffness, G', (10 ³ lbs/in)	80.3	79.2	78.1	77.1	76.1	75.2	74.4	73.6	72.9
	9	Strength, (lbs/ft)	1 152	1 140	1 128	1 117	1 107	1 098	1 089	1 081	1 074
		Stiffness, G', (10 ³ lbs/in)	89.8	88.8	87.8	87.0	86.1	85.3	84.6	83.9	83.2
	6	Strength, (lbs/ft)	1 505	1 494	1 484	1 474	1 465	1 457	1 449	1 442	1 435
		Stiffness, G', (10 ³ lbs/in)	106.6	105.8	105.1	104.4	103.8	103.2	102.6	102.0	101.5

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/4	36	Strength, (lbs/ft)	143	137	131	126	122	118	114	111	108
		Stiffness, G', (10 ³ lbs/in)	16.4	16.3	16.1	15.9	15.7	15.5	15.2	15.0	14.7
	24	Strength, (lbs/ft)	162	155	150	145	140	136	132	129	126
		Stiffness, G', (10 ³ lbs/in)	16.6	16.5	16.3	16.1	16.0	15.7	15.5	15.3	15.0
	12	Strength, (lbs/ft)	216	210	204	199	195	190	187	183	180
		Stiffness, G', (10 ³ lbs/in)	17.1	17.0	16.9	16.8	16.6	16.5	16.3	16.1	15.9
	9	Strength, (lbs/ft)	252	246	240	235	231	227	223	220	217
		Stiffness, G', (10 ³ lbs/in)	17.4	17.4	17.3	17.2	17.1	17.0	16.8	16.6	16.5
	6	Strength, (lbs/ft)	325	319	313	308	304	299	296	292	289
		Stiffness, G', (10 ³ lbs/in)	18.0	18.0	18.0	18.0	17.9	17.8	17.7	17.6	17.5
24/6	36	Strength, (lbs/ft)	251	238	227	217	208	199	192	185	179
		Stiffness, G', (10 ³ lbs/in)	21.0	21.1	21.2	21.2	21.2	21.1	21.0	20.8	20.7
	24	Strength, (lbs/ft)	269	256	245	235	226	218	210	203	197
		Stiffness, G', (10 ³ lbs/in)	21.1	21.2	21.3	21.4	21.3	21.3	21.2	21.0	20.9
	12	Strength, (lbs/ft)	323	311	299	289	280	272	265	258	252
		Stiffness, G', (10 ³ lbs/in)	21.4	21.6	21.7	21.7	21.8	21.7	21.7	21.6	21.5
	9	Strength, (lbs/ft)	360	347	336	326	317	308	301	294	288
		Stiffness, G', (10 ³ lbs/in)	21.5	21.8	21.9	22.0	22.0	22.0	22.0	21.9	21.8
	6	Strength, (lbs/ft)	432	420	408	398	389	381	374	367	361
		Stiffness, G', (10 ³ lbs/in)	21.9	22.1	22.3	22.5	22.6	22.6	22.6	22.6	22.5

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/4	36	Strength, (lbs/ft)	163	157	152	147	143	139	135	132	129
		Stiffness, G', (10 ³ lbs/in)	19.9	19.5	19.1	18.7	18.3	17.9	17.5	17.2	16.8
	24	Strength, (lbs/ft)	189	183	178	173	169	165	161	158	155
		Stiffness, G', (10 ³ lbs/in)	20.2	19.8	19.4	19.1	18.7	18.3	17.9	17.6	17.2
	12	Strength, (lbs/ft)	267	262	256	252	247	243	240	236	233
		Stiffness, G', (10 ³ lbs/in)	21.0	20.7	20.4	20.1	19.7	19.4	19.1	18.7	18.4
	9	Strength, (lbs/ft)	320	314	309	304	300	296	292	289	286
		Stiffness, G', (10 ³ lbs/in)	21.6	21.3	21.0	20.7	20.4	20.1	19.8	19.5	19.2
	6	Strength, (lbs/ft)	422	416	411	406	402	398	394	390	387
		Stiffness, G', (10 ³ lbs/in)	22.6	22.4	22.2	21.9	21.7	21.4	21.2	20.9	20.7
24/6	36	Strength, (lbs/ft)	276	265	254	244	236	228	220	214	207
		Stiffness, G', (10 ³ lbs/in)	27.3	27.1	26.8	26.5	26.2	25.8	25.5	25.1	24.7
	24	Strength, (lbs/ft)	303	291	280	271	262	254	246	240	234
		Stiffness, G', (10 ³ lbs/in)	27.5	27.3	27.0	26.7	26.4	26.1	25.8	25.4	25.0
	12	Strength, (lbs/ft)	381	369	359	349	340	332	325	318	312
		Stiffness, G', (10 ³ lbs/in)	28.0	27.9	27.7	27.4	27.2	26.9	26.6	26.2	25.9
	9	Strength, (lbs/ft)	433	422	411	401	393	385	377	371	364
		Stiffness, G', (10 ³ lbs/in)	28.4	28.2	28.1	27.9	27.6	27.4	27.1	26.8	26.5
	6	Strength, (lbs/ft)	538	526	516	506	497	489	482	475	469
		Stiffness, G', (10 ³ lbs/in)	29.0	29.0	28.9	28.7	28.5	28.3	28.1	27.9	27.6

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)									
			10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	
24/4	36	Strength, (lbs/ft)	217	211	206	201	196	192	188	185	181	
		Stiffness, G', (10 ³ lbs/in)	24.9	24.2	23.5	22.9	22.2	21.6	21.1	20.5	20.0	
	24	Strength, (lbs/ft)	263	257	252	247	243	238	235	231	228	
		Stiffness, G', (10 ³ lbs/in)	25.4	24.7	24.0	23.4	22.8	22.2	21.6	21.1	20.6	
	12	Strength, (lbs/ft)	403	397	392	387	382	378	374	371	367	
		Stiffness, G', (10 ³ lbs/in)	26.8	26.1	25.5	24.9	24.4	23.8	23.3	22.8	22.3	
	9	Strength, (lbs/ft)	496	490	485	480	475	471	467	464	460	
		Stiffness, G', (10 ³ lbs/in)	27.7	27.1	26.5	25.9	25.4	24.9	24.4	23.9	23.4	
	6	Strength, (lbs/ft)	656	650	645	640	636	632	628	625	622	
		Stiffness, G', (10 ³ lbs/in)	29.5	28.9	28.4	27.9	27.4	26.9	26.4	26.0	25.6	
	24/6	36	Strength, (lbs/ft)	352	339	328	318	308	300	292	284	278
			Stiffness, G', (10 ³ lbs/in)	36.8	36.0	35.3	34.5	33.8	33.0	32.3	31.6	30.9
24		Strength, (lbs/ft)	398	386	374	364	355	346	338	331	324	
		Stiffness, G', (10 ³ lbs/in)	37.2	36.4	35.7	34.9	34.2	33.5	32.7	32.1	31.4	
12		Strength, (lbs/ft)	538	525	514	504	494	486	478	470	464	
		Stiffness, G', (10 ³ lbs/in)	38.2	37.5	36.8	36.1	35.4	34.7	34.1	33.4	32.8	
9		Strength, (lbs/ft)	631	618	607	597	587	579	571	563	557	
		Stiffness, G', (10 ³ lbs/in)	38.9	38.2	37.6	36.9	36.2	35.6	34.9	34.3	33.7	
6		Strength, (lbs/ft)	812	800	789	779	769	760	752	745	738	
		Stiffness, G', (10 ³ lbs/in)	40.2	39.6	39.0	38.4	37.8	37.2	36.6	36.1	35.5	

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
24/4	36	Strength, (lbs/ft)	276	270	265	260	256	252	248	244	241
		Stiffness, G', (10 ³ lbs/in)	27.8	26.9	26.1	25.3	24.6	23.9	23.2	22.6	22.0
	24	Strength, (lbs/ft)	349	343	338	333	329	324	321	317	314
		Stiffness, G', (10 ³ lbs/in)	28.4	27.6	26.8	26.0	25.3	24.6	23.9	23.3	22.8
	12	Strength, (lbs/ft)	567	561	556	551	546	542	539	535	532
		Stiffness, G', (10 ³ lbs/in)	30.3	29.5	28.7	28.0	27.3	26.6	26.0	25.4	24.9
	9	Strength, (lbs/ft)	700	694	689	684	679	675	671	667	664
		Stiffness, G', (10 ³ lbs/in)	31.5	30.8	30.0	29.3	28.6	28.0	27.4	26.8	26.3
	6	Strength, (lbs/ft)	932	927	922	918	914	910	907	904	901
		Stiffness, G', (10 ³ lbs/in)	33.9	33.2	32.5	31.8	31.2	30.6	30.0	29.5	29.0
24/6	36	Strength, (lbs/ft)	427	415	404	393	384	375	367	359	352
		Stiffness, G', (10 ³ lbs/in)	42.9	41.8	40.7	39.6	38.6	37.6	36.7	35.8	35.0
	24	Strength, (lbs/ft)	500	488	476	466	456	447	439	432	424
		Stiffness, G', (10 ³ lbs/in)	43.4	42.3	41.2	40.2	39.2	38.2	37.3	36.4	35.6
	12	Strength, (lbs/ft)	718	705	694	684	674	665	657	650	642
		Stiffness, G', (10 ³ lbs/in)	44.9	43.9	42.8	41.8	40.9	40.0	39.1	38.2	37.4
	9	Strength, (lbs/ft)	863	851	840	829	820	811	803	795	788
		Stiffness, G', (10 ³ lbs/in)	45.9	44.9	43.9	42.9	42.0	41.1	40.2	39.4	38.6
	6	Strength, (lbs/ft)	1 116	1 105	1 094	1 084	1 075	1 066	1 059	1 051	1 044
		Stiffness, G', (10 ³ lbs/in)	47.9	46.9	46.0	45.1	44.2	43.3	42.5	41.7	41.0

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/4	36	Strength, (lbs/ft)	189	184	180	176	173	170	167	165	162
		Stiffness, G', (10 ³ lbs/in)	18.2	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.4
	24	Strength, (lbs/ft)	244	239	235	231	228	225	222	219	217
		Stiffness, G', (10 ³ lbs/in)	19.4	19.7	19.9	20.1	20.2	20.3	20.4	20.5	20.6
	12	Strength, (lbs/ft)	399	394	390	386	383	380	377	374	372
		Stiffness, G', (10 ³ lbs/in)	22.3	22.8	23.3	23.8	24.2	24.6	24.9	25.2	25.5
	9	Strength, (lbs/ft)	484	480	476	473	469	467	464	462	459
		Stiffness, G', (10 ³ lbs/in)	23.7	24.3	25.0	25.5	26.1	26.6	27.0	27.5	27.9
	6	Strength, (lbs/ft)	628	625	621	619	616	614	612	610	608
		Stiffness, G', (10 ³ lbs/in)	25.6	26.5	27.3	28.1	28.8	29.5	30.2	30.8	31.4
24/6	36	Strength, (lbs/ft)	296	285	275	267	259	252	245	239	234
		Stiffness, G', (10 ³ lbs/in)	22.0	22.3	22.5	22.7	22.9	23.0	23.1	23.1	23.1
	24	Strength, (lbs/ft)	351	340	330	321	313	306	300	294	288
		Stiffness, G', (10 ³ lbs/in)	22.7	23.2	23.5	23.8	24.0	24.3	24.4	24.6	24.7
	12	Strength, (lbs/ft)	515	504	494	485	477	470	464	458	452
		Stiffness, G', (10 ³ lbs/in)	24.5	25.2	25.8	26.3	26.8	27.2	27.6	28.0	28.3
	9	Strength, (lbs/ft)	606	596	587	578	571	564	558	552	547
		Stiffness, G', (10 ³ lbs/in)	25.5	26.2	26.9	27.5	28.1	28.7	29.2	29.7	30.2
	6	Strength, (lbs/ft)	761	752	744	737	731	725	720	715	711
		Stiffness, G', (10 ³ lbs/in)	26.8	27.8	28.6	29.4	30.2	30.9	31.6	32.3	32.9

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/4	36	Strength, (lbs/ft)	215	211	207	203	200	197	194	192	189
		Stiffness, G', (10 ³ lbs/in)	23.1	23.0	22.9	22.8	22.6	22.5	22.3	22.2	22.0
	24	Strength, (lbs/ft)	281	276	272	269	266	262	260	257	255
		Stiffness, G', (10 ³ lbs/in)	25.3	25.4	25.4	25.4	25.4	25.4	25.3	25.3	25.2
	12	Strength, (lbs/ft)	467	462	458	455	451	448	445	442	440
		Stiffness, G', (10 ³ lbs/in)	30.5	30.9	31.3	31.6	31.9	32.2	32.4	32.6	32.8
	9	Strength, (lbs/ft)	570	566	562	559	556	553	550	548	546
		Stiffness, G', (10 ³ lbs/in)	33.1	33.7	34.2	34.7	35.2	35.6	36.0	36.3	36.7
	6	Strength, (lbs/ft)	744	741	738	735	733	731	728	727	725
		Stiffness, G', (10 ³ lbs/in)	37.0	37.8	38.6	39.4	40.1	40.7	41.3	41.9	42.5
24/6	36	Strength, (lbs/ft)	329	319	309	301	293	286	279	273	268
		Stiffness, G', (10 ³ lbs/in)	29.3	29.4	29.3	29.3	29.2	29.1	28.9	28.8	28.6
	24	Strength, (lbs/ft)	395	384	375	366	358	351	345	339	334
		Stiffness, G', (10 ³ lbs/in)	30.8	31.0	31.1	31.2	31.2	31.2	31.2	31.1	31.1
	12	Strength, (lbs/ft)	591	581	571	563	555	548	542	536	530
		Stiffness, G', (10 ³ lbs/in)	34.4	34.9	35.3	35.7	36.0	36.3	36.6	36.8	37.0
	9	Strength, (lbs/ft)	702	692	683	675	668	661	655	649	644
		Stiffness, G', (10 ³ lbs/in)	36.3	37.0	37.6	38.1	38.6	39.0	39.4	39.8	40.1
	6	Strength, (lbs/ft)	891	883	875	868	862	856	851	846	841
		Stiffness, G', (10 ³ lbs/in)	39.2	40.1	41.0	41.8	42.5	43.2	43.8	44.4	45.0

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
24/4	36	Strength, (lbs/ft)	274	269	265	261	257	254	251	248	246
		Stiffness, G', (10 ³ lbs/in)	30.6	30.2	29.8	29.4	29.1	28.7	28.4	28.0	27.7
	24	Strength, (lbs/ft)	362	357	352	348	345	342	338	336	333
		Stiffness, G', (10 ³ lbs/in)	34.6	34.3	34.0	33.8	33.5	33.3	33.1	32.8	32.6
	12	Strength, (lbs/ft)	608	604	599	595	591	588	585	582	579
		Stiffness, G', (10 ³ lbs/in)	44.4	44.5	44.6	44.7	44.7	44.8	44.8	44.8	44.8
	9	Strength, (lbs/ft)	747	742	738	734	731	728	725	722	720
		Stiffness, G', (10 ³ lbs/in)	49.6	49.9	50.2	50.5	50.7	50.9	51.1	51.3	51.5
	6	Strength, (lbs/ft)	979	976	972	969	967	964	962	960	958
		Stiffness, G', (10 ³ lbs/in)	57.9	58.6	59.2	59.8	60.3	60.8	61.3	61.7	62.1
24/6	36	Strength, (lbs/ft)	409	398	387	378	370	362	355	348	342
		Stiffness, G', (10 ³ lbs/in)	41.0	40.6	40.1	39.6	39.1	38.7	38.2	37.7	37.3
	24	Strength, (lbs/ft)	496	485	475	466	457	449	442	435	429
		Stiffness, G', (10 ³ lbs/in)	44.0	43.7	43.4	43.1	42.7	42.4	42.0	41.7	41.3
	12	Strength, (lbs/ft)	758	747	737	728	719	711	704	698	691
		Stiffness, G', (10 ³ lbs/in)	51.7	51.7	51.8	51.8	51.8	51.8	51.8	51.7	51.6
	9	Strength, (lbs/ft)	906	896	886	877	869	861	854	848	842
		Stiffness, G', (10 ³ lbs/in)	55.8	56.1	56.4	56.6	56.8	57.0	57.1	57.2	57.3
	6	Strength, (lbs/ft)	1 161	1 152	1 143	1 136	1 129	1 123	1 117	1 111	1 106
		Stiffness, G', (10 ³ lbs/in)	62.5	63.2	63.8	64.4	64.9	65.4	65.8	66.2	66.6

3.0 in. deck - 24 in. wide - 8 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – IMPERIAL

Support Connection Pattern	Side Lap Spacing (in.)		Span (ft)								
			11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
24/4	36	Strength, (lbs/ft)	329	324	320	316	312	309	305	302	300
		Stiffness, G', (10 ³ lbs/in)	35.8	35.2	34.6	34.1	33.6	33.2	32.7	32.3	31.9
	24	Strength, (lbs/ft)	438	434	429	425	421	418	415	412	409
		Stiffness, G', (10 ³ lbs/in)	41.3	40.8	40.4	40.0	39.6	39.2	38.8	38.5	38.1
	12	Strength, (lbs/ft)	746	741	736	732	728	724	721	718	715
		Stiffness, G', (10 ³ lbs/in)	55.5	55.4	55.3	55.1	55.0	54.9	54.7	54.6	54.5
	9	Strength, (lbs/ft)	919	914	910	906	903	900	896	894	891
		Stiffness, G', (10 ³ lbs/in)	63.5	63.5	63.6	63.6	63.7	63.7	63.7	63.7	63.7
	6	Strength, (lbs/ft)	1 209	1 206	1 203	1 200	1 197	1 194	1 192	1 190	1 188
		Stiffness, G', (10 ³ lbs/in)	76.6	77.0	77.4	77.7	78.1	78.4	78.6	78.9	79.1
24/6	36	Strength, (lbs/ft)	480	469	458	449	440	432	424	417	410
		Stiffness, G', (10 ³ lbs/in)	49.4	48.5	47.7	47.0	46.2	45.5	44.8	44.1	43.5
	24	Strength, (lbs/ft)	590	578	568	558	549	541	533	526	520
		Stiffness, G', (10 ³ lbs/in)	53.9	53.2	52.5	51.9	51.3	50.7	50.1	49.5	49.0
	12	Strength, (lbs/ft)	917	906	895	886	877	869	861	854	847
		Stiffness, G', (10 ³ lbs/in)	65.7	65.4	65.1	64.8	64.5	64.2	63.9	63.6	63.3
	9	Strength, (lbs/ft)	1 102	1 091	1 081	1 072	1 063	1 055	1 047	1 040	1 034
		Stiffness, G', (10 ³ lbs/in)	72.4	72.3	72.3	72.2	72.1	71.9	71.8	71.7	71.5
	6	Strength, (lbs/ft)	1 422	1 413	1 404	1 396	1 389	1 382	1 376	1 370	1 365
		Stiffness, G', (10 ³ lbs/in)	83.6	84.0	84.2	84.5	84.7	84.9	85.1	85.3	85.4

1.5 in. deck - 36 in. wide - 6 in. flute spacing
 Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24
 Side-lap connection: Button Punch @ 24 in. o.c.
 Concrete resistance: 3000 psi Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
 2.5 in. thick concrete over deck
 Concrete density: 145 pcf Minimum

SDI METHOD – IMPERIAL

Thickness = 0.030 in.										
Support Connection Pattern		Span (ft)								
		3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
36/4	Strength, (lbs/ft)	2 806	2 758	2 722	2 693	2 671	2 653	2 637	2 624	2 613
	Stiffness, G', (10 ³ lbs/in)	2 459	2 451	2 444	2 439	2 434	2 430	2 427	2 424	2 421
36/7	Strength, (lbs/ft)	2 955	2 886	2 834	2 793	2 761	2 734	2 712	2 693	2 677
	Stiffness, G', (10 ³ lbs/in)	2 483	2 474	2 466	2 459	2 454	2 449	2 445	2 441	2 437
36/9	Strength, (lbs/ft)	3 292	3 174	3 086	3 017	2 962	2 918	2 880	2 848	2 821
	Stiffness, G', (10 ³ lbs/in)	2 509	2 499	2 491	2 483	2 477	2 471	2 466	2 462	2 458

Thickness = 0.036 in.										
Support Connection Pattern		Span (ft)								
		4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
36/4	Strength, (lbs/ft)	2 788	2 755	2 729	2 707	2 689	2 674	2 661	2 650	2 640
	Stiffness, G', (10 ³ lbs/in)	2 453	2 446	2 441	2 436	2 432	2 429	2 426	2 423	2 421
36/7	Strength, (lbs/ft)	2 921	2 874	2 835	2 804	2 778	2 756	2 738	2 721	2 707
	Stiffness, G', (10 ³ lbs/in)	2 478	2 470	2 464	2 458	2 453	2 449	2 445	2 441	2 438
36/9	Strength, (lbs/ft)	3 222	3 141	3 076	3 023	2 979	2 941	2 909	2 882	2 857
	Stiffness, G', (10 ³ lbs/in)	2 507	2 498	2 491	2 484	2 478	2 473	2 468	2 464	2 460

Thickness = 0.048 in.										
Support Connection Pattern		Span (ft)								
		5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
36/4	Strength, (lbs/ft)	2 850	2 823	2 800	2 781	2 765	2 751	2 739	2 728	2 718
	Stiffness, G', (10 ³ lbs/in)	2 453	2 448	2 443	2 439	2 435	2 432	2 429	2 426	2 424
36/7	Strength, (lbs/ft)	2 991	2 951	2 918	2 890	2 866	2 845	2 827	2 811	2 796
	Stiffness, G', (10 ³ lbs/in)	2 481	2 474	2 468	2 463	2 458	2 454	2 450	2 446	2 443
36/9	Strength, (lbs/ft)	3 307	3 239	3 182	3 134	3 092	3 056	3 025	2 997	2 972
	Stiffness, G', (10 ³ lbs/in)	2 515	2 507	2 499	2 493	2 487	2 482	2 477	2 472	2 468

Thickness = 0.060 in.										
Support Connection Pattern		Span (ft)								
		6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
36/4	Strength, (lbs/ft)	2 922	2 899	2 880	2 864	2 849	2 836	2 825	2 815	2 806
	Stiffness, G', (10 ³ lbs/in)	2 452	2 447	2 443	2 439	2 436	2 433	2 430	2 428	2 426
36/7	Strength, (lbs/ft)	3 066	3 033	3 004	2 979	2 958	2 939	2 922	2 906	2 893
	Stiffness, G', (10 ³ lbs/in)	2 481	2 475	2 469	2 464	2 460	2 456	2 452	2 449	2 446
36/9	Strength, (lbs/ft)	3 392	3 334	3 284	3 240	3 202	3 169	3 139	3 112	3 088
	Stiffness, G', (10 ³ lbs/in)	2 519	2 511	2 504	2 497	2 492	2 486	2 482	2 477	2 473

1.5 in. deck - 36 in. wide - 6 in. flute spacing
 Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24
 Side-lap connection: #10 Screws @ 24 in. o.c.
 Concrete resistance: 3000 psi Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
 2.5 in. thick concrete over deck
 Concrete density: 145 pcf Minimum

SDI METHOD – IMPERIAL

Thickness = 0.030 in.										
Support Connection Pattern		Span (ft)								
		3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
36/4	Strength, (lbs/ft)	2 842	2 805	2 776	2 754	2 737	2 722	2 710	2 700	2 691
	Stiffness, G', (10 ³ lbs/in)	2 463	2 456	2 451	2 447	2 443	2 440	2 437	2 435	2 433
36/7	Strength, (lbs/ft)	2 992	2 933	2 888	2 854	2 826	2 804	2 785	2 769	2 755
	Stiffness, G', (10 ³ lbs/in)	2 486	2 478	2 471	2 466	2 461	2 457	2 453	2 450	2 447
36/9	Strength, (lbs/ft)	3 328	3 221	3 141	3 078	3 028	2 987	2 953	2 924	2 899
	Stiffness, G', (10 ³ lbs/in)	2 511	2 502	2 494	2 488	2 482	2 477	2 473	2 469	2 466

Thickness = 0.036 in.										
Support Connection Pattern		Span (ft)								
		4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
36/4	Strength, (lbs/ft)	2 847	2 820	2 799	2 782	2 768	2 756	2 746	2 737	2 729
	Stiffness, G', (10 ³ lbs/in)	2 460	2 455	2 451	2 447	2 444	2 442	2 439	2 437	2 435
36/7	Strength, (lbs/ft)	2 980	2 939	2 906	2 880	2 857	2 838	2 822	2 808	2 796
	Stiffness, G', (10 ³ lbs/in)	2 484	2 477	2 472	2 467	2 463	2 459	2 456	2 453	2 451
36/9	Strength, (lbs/ft)	3 281	3 207	3 147	3 098	3 058	3 023	2 994	2 968	2 946
	Stiffness, G', (10 ³ lbs/in)	2 511	2 504	2 497	2 491	2 486	2 482	2 478	2 474	2 471

Thickness = 0.048 in.										
Support Connection Pattern		Span (ft)								
		5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
36/4	Strength, (lbs/ft)	2 923	2 901	2 882	2 866	2 853	2 841	2 831	2 822	2 814
	Stiffness, G', (10 ³ lbs/in)	2 466	2 461	2 457	2 454	2 451	2 449	2 447	2 445	2 443
36/7	Strength, (lbs/ft)	3 064	3 029	3 000	2 975	2 953	2 935	2 919	2 905	2 892
	Stiffness, G', (10 ³ lbs/in)	2 492	2 486	2 481	2 476	2 472	2 469	2 465	2 463	2 460
36/9	Strength, (lbs/ft)	3 381	3 317	3 264	3 218	3 180	3 146	3 117	3 091	3 068
	Stiffness, G', (10 ³ lbs/in)	2 524	2 516	2 510	2 504	2 499	2 494	2 490	2 486	2 483

Thickness = 0.060 in.										
Support Connection Pattern		Span (ft)								
		6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0
36/4	Strength, (lbs/ft)	2 995	2 975	2 959	2 944	2 931	2 920	2 910	2 902	2 894
	Stiffness, G', (10 ³ lbs/in)	2 469	2 465	2 462	2 459	2 456	2 454	2 452	2 450	2 448
36/7	Strength, (lbs/ft)	3 140	3 109	3 083	3 060	3 040	3 023	3 007	2 993	2 980
	Stiffness, G', (10 ³ lbs/in)	2 496	2 491	2 486	2 482	2 478	2 475	2 472	2 469	2 467
36/9	Strength, (lbs/ft)	3 465	3 410	3 362	3 321	3 284	3 253	3 224	3 199	3 176
	Stiffness, G', (10 ³ lbs/in)	2 531	2 524	2 518	2 512	2 507	2 503	2 499	2 495	2 492

3.0 in. deck - 24 in. wide - 6 in. flute spacing
Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24
Side-lap connection: Button Punch @ 24 in. o.c.
Concrete resistance: 3000 psi Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
2.5 in. thick concrete over deck
Concrete density: 145 pcf Minimum

SDI METHOD – IMPERIAL

Thickness = 0.030 in.										
Support Connection Pattern		Span (ft)								
		8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/3	Strength, (lbs/ft)	2 581	2 574	2 569	2 563	2 559	2 554	2 550	2 547	2 544
	Stiffness, G', (10 ³ lbs/in)	2 397	2 396	2 395	2 394	2 394	2 393	2 392	2 392	2 391
24/5	Strength, (lbs/ft)	2 613	2 604	2 597	2 590	2 584	2 578	2 573	2 569	2 565
	Stiffness, G', (10 ³ lbs/in)	2 406	2 404	2 403	2 402	2 401	2 400	2 399	2 398	2 397
24/7	Strength, (lbs/ft)	2 739	2 723	2 709	2 696	2 685	2 674	2 665	2 656	2 649
	Stiffness, G', (10 ³ lbs/in)	2 420	2 418	2 417	2 415	2 413	2 412	2 411	2 410	2 409

Thickness = 0.036 in.										
Support Connection Pattern		Span (ft)								
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/3	Strength, (lbs/ft)	2 609	2 603	2 597	2 592	2 588	2 584	2 580	2 576	2 573
	Stiffness, G', (10 ³ lbs/in)	2 397	2 396	2 396	2 395	2 394	2 393	2 393	2 392	2 392
24/5	Strength, (lbs/ft)	2 642	2 634	2 627	2 621	2 615	2 610	2 605	2 600	2 596
	Stiffness, G', (10 ³ lbs/in)	2 406	2 405	2 404	2 403	2 402	2 401	2 400	2 399	2 398
24/7	Strength, (lbs/ft)	2 776	2 761	2 748	2 735	2 724	2 714	2 705	2 697	2 689
	Stiffness, G', (10 ³ lbs/in)	2 421	2 420	2 418	2 416	2 415	2 413	2 412	2 411	2 410

Thickness = 0.048 in.										
Support Connection Pattern		Span (ft)								
		10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
24/3	Strength, (lbs/ft)	2 684	2 678	2 672	2 667	2 662	2 658	2 654	2 650	2 647
	Stiffness, G', (10 ³ lbs/in)	2 399	2 398	2 397	2 396	2 396	2 395	2 394	2 394	2 393
24/5	Strength, (lbs/ft)	2 724	2 716	2 708	2 702	2 695	2 690	2 684	2 680	2 675
	Stiffness, G', (10 ³ lbs/in)	2 409	2 407	2 406	2 405	2 404	2 403	2 402	2 401	2 401
24/7	Strength, (lbs/ft)	2 882	2 866	2 852	2 839	2 827	2 816	2 806	2 797	2 788
	Stiffness, G', (10 ³ lbs/in)	2 426	2 424	2 422	2 420	2 419	2 417	2 416	2 415	2 414

Thickness = 0.060 in.										
Support Connection Pattern		Span (ft)								
		11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
24/3	Strength, (lbs/ft)	2 770	2 764	2 759	2 754	2 749	2 745	2 741	2 737	2 733
	Stiffness, G', (10 ³ lbs/in)	2 400	2 399	2 398	2 397	2 397	2 396	2 396	2 395	2 394
24/5	Strength, (lbs/ft)	2 815	2 807	2 799	2 793	2 787	2 781	2 776	2 771	2 766
	Stiffness, G', (10 ³ lbs/in)	2 410	2 409	2 408	2 406	2 405	2 405	2 404	2 403	2 402
24/7	Strength, (lbs/ft)	2 992	2 977	2 962	2 949	2 937	2 926	2 915	2 905	2 896
	Stiffness, G', (10 ³ lbs/in)	2 428	2 426	2 425	2 423	2 422	2 420	2 419	2 418	2 416

3.0 in. deck - 24 in. wide - 6 in. flute spacing
Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24
Side-lap connection: #10 Screws @ 24 in. o.c.
Concrete resistance: 3000 psi Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
2.5 in. thick concrete over deck
Concrete density: 145 pcf Minimum

SDI METHOD – IMPERIAL

Thickness = 0.030 in.										
Support Connection Pattern		Span (ft)								
		8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/3	Strength, (lbs/ft)	2 663	2 658	2 654	2 650	2 646	2 643	2 640	2 637	2 635
	Stiffness, G', (10 ³ lbs/in)	2 407	2 406	2 405	2 405	2 404	2 404	2 403	2 403	2 402
24/5	Strength, (lbs/ft)	2 695	2 688	2 682	2 676	2 671	2 667	2 663	2 659	2 656
	Stiffness, G', (10 ³ lbs/in)	2 414	2 413	2 412	2 411	2 411	2 410	2 409	2 408	2 408
24/7	Strength, (lbs/ft)	2 821	2 806	2 794	2 782	2 772	2 763	2 755	2 747	2 740
	Stiffness, G', (10 ³ lbs/in)	2 427	2 426	2 424	2 423	2 422	2 421	2 419	2 419	2 418

Thickness = 0.036 in.										
Support Connection Pattern		Span (ft)								
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/3	Strength, (lbs/ft)	2 701	2 696	2 692	2 688	2 684	2 681	2 678	2 676	2 673
	Stiffness, G', (10 ³ lbs/in)	2 409	2 408	2 407	2 407	2 406	2 406	2 405	2 405	2 405
24/5	Strength, (lbs/ft)	2 734	2 728	2 722	2 717	2 712	2 707	2 703	2 700	2 696
	Stiffness, G', (10 ³ lbs/in)	2 416	2 415	2 414	2 414	2 413	2 412	2 412	2 411	2 410
24/7	Strength, (lbs/ft)	2 868	2 854	2 842	2 831	2 821	2 812	2 804	2 796	2 789
	Stiffness, G', (10 ³ lbs/in)	2 430	2 429	2 427	2 426	2 425	2 424	2 423	2 422	2 421

Thickness = 0.048 in.										
Support Connection Pattern		Span (ft)								
		10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
24/3	Strength, (lbs/ft)	2 782	2 777	2 773	2 768	2 765	2 761	2 758	2 755	2 752
	Stiffness, G', (10 ³ lbs/in)	2 413	2 412	2 412	2 411	2 411	2 410	2 410	2 409	2 409
24/5	Strength, (lbs/ft)	2 822	2 815	2 809	2 803	2 798	2 793	2 788	2 784	2 780
	Stiffness, G', (10 ³ lbs/in)	2 422	2 421	2 420	2 419	2 418	2 417	2 417	2 416	2 415
24/7	Strength, (lbs/ft)	2 980	2 966	2 953	2 941	2 930	2 919	2 910	2 901	2 893
	Stiffness, G', (10 ³ lbs/in)	2 437	2 436	2 434	2 433	2 431	2 430	2 429	2 428	2 427

Thickness = 0.060 in.										
Support Connection Pattern		Span (ft)								
		11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
24/3	Strength, (lbs/ft)	2 860	2 855	2 850	2 846	2 842	2 838	2 835	2 831	2 828
	Stiffness, G', (10 ³ lbs/in)	2 417	2 416	2 415	2 415	2 414	2 414	2 413	2 413	2 413
24/5	Strength, (lbs/ft)	2 904	2 897	2 891	2 885	2 879	2 874	2 870	2 865	2 861
	Stiffness, G', (10 ³ lbs/in)	2 426	2 425	2 424	2 423	2 422	2 421	2 421	2 420	2 419
24/7	Strength, (lbs/ft)	3 082	3 067	3 054	3 041	3 030	3 019	3 009	3 000	2 991
	Stiffness, G', (10 ³ lbs/in)	2 442	2 441	2 439	2 438	2 437	2 435	2 434	2 433	2 432

3.0 in. deck - 24 in. wide - 8 in. flute spacing
Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24
Side-lap connection: Button Punch @ 24 in. o.c.
Concrete resistance: 3000 psi Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
2.5 in. thick concrete over deck
Concrete density: 145 pcf Minimum

SDI METHOD – IMPERIAL

		Thickness = 0.030 in.									
Support Connection Pattern		Span (ft)									
		8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	
24/4	Strength, (lbs/ft)	2 595	2 588	2 581	2 575	2 570	2 565	2 561	2 557	2 553	
	Stiffness, G', (10 ³ lbs/in)	2 403	2 402	2 401	2 400	2 399	2 398	2 397	2 396	2 396	
24/6	Strength, (lbs/ft)	2 721	2 706	2 693	2 681	2 671	2 661	2 652	2 644	2 637	
	Stiffness, G', (10 ³ lbs/in)	2 419	2 417	2 415	2 413	2 412	2 411	2 409	2 408	2 407	

		Thickness = 0.036 in.									
Support Connection Pattern		Span (ft)									
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	
24/4	Strength, (lbs/ft)	2 624	2 617	2 611	2 605	2 600	2 595	2 591	2 587	2 583	
	Stiffness, G', (10 ³ lbs/in)	2 404	2 402	2 401	2 400	2 399	2 398	2 398	2 397	2 396	
24/6	Strength, (lbs/ft)	2 757	2 743	2 731	2 720	2 709	2 700	2 691	2 683	2 676	
	Stiffness, G', (10 ³ lbs/in)	2 420	2 418	2 416	2 415	2 413	2 412	2 411	2 410	2 408	

		Thickness = 0.048 in.									
Support Connection Pattern		Span (ft)									
		10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	
24/4	Strength, (lbs/ft)	2 702	2 695	2 688	2 682	2 677	2 672	2 668	2 663	2 659	
	Stiffness, G', (10 ³ lbs/in)	2 406	2 404	2 403	2 402	2 401	2 401	2 400	2 399	2 398	
24/6	Strength, (lbs/ft)	2 860	2 846	2 832	2 820	2 809	2 799	2 789	2 781	2 773	
	Stiffness, G', (10 ³ lbs/in)	2 423	2 422	2 420	2 418	2 417	2 416	2 414	2 413	2 412	

		Thickness = 0.060 in.									
Support Connection Pattern		Span (ft)									
		11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	
24/4	Strength, (lbs/ft)	2 790	2 783	2 777	2 771	2 766	2 761	2 756	2 752	2 748	
	Stiffness, G', (10 ³ lbs/in)	2 407	2 406	2 405	2 404	2 403	2 402	2 401	2 400	2 400	
24/6	Strength, (lbs/ft)	2 968	2 953	2 940	2 927	2 916	2 906	2 896	2 887	2 878	
	Stiffness, G', (10 ³ lbs/in)	2 426	2 424	2 422	2 421	2 419	2 418	2 417	2 416	2 414	

3.0 in. deck - 24 in. wide - 8 in. flute spacing
Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24
Side-lap connection: #10 Screws @ 24 in. o.c.
Concrete resistance: 3000 psi Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
2.5 in. thick concrete over deck
Concrete density: 145 pcf Minimum

SDI METHOD – IMPERIAL

Thickness = 0.030 in.										
Support Connection Pattern		Span (ft)								
		8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
24/4	Strength, (lbs/ft)	2 677	2 671	2 666	2 661	2 657	2 654	2 650	2 647	2 644
	Stiffness, G', (10 ³ lbs/in)	2 412	2 411	2 410	2 410	2 409	2 408	2 408	2 407	2 406
24/6	Strength, (lbs/ft)	2 803	2 790	2 778	2 768	2 758	2 750	2 742	2 735	2 728
	Stiffness, G', (10 ³ lbs/in)	2 426	2 425	2 423	2 422	2 421	2 420	2 419	2 418	2 417

Thickness = 0.036 in.										
Support Connection Pattern		Span (ft)								
		9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0
24/4	Strength, (lbs/ft)	2 716	2 710	2 705	2 701	2 697	2 693	2 689	2 686	2 683
	Stiffness, G', (10 ³ lbs/in)	2 414	2 413	2 413	2 412	2 411	2 410	2 410	2 409	2 409
24/6	Strength, (lbs/ft)	2 849	2 837	2 825	2 815	2 806	2 797	2 790	2 782	2 776
	Stiffness, G', (10 ³ lbs/in)	2 429	2 427	2 426	2 425	2 424	2 422	2 421	2 421	2 420

Thickness = 0.048 in.										
Support Connection Pattern		Span (ft)								
		10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0
24/4	Strength, (lbs/ft)	2 800	2 794	2 789	2 784	2 779	2 775	2 771	2 768	2 765
	Stiffness, G', (10 ³ lbs/in)	2 419	2 418	2 417	2 417	2 416	2 415	2 415	2 414	2 414
24/6	Strength, (lbs/ft)	2 958	2 945	2 933	2 922	2 911	2 902	2 893	2 885	2 878
	Stiffness, G', (10 ³ lbs/in)	2 435	2 434	2 432	2 431	2 430	2 429	2 428	2 427	2 426

Thickness = 0.060 in.										
Support Connection Pattern		Span (ft)								
		11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0
24/4	Strength, (lbs/ft)	2 880	2 874	2 868	2 863	2 859	2 854	2 850	2 846	2 843
	Stiffness, G', (10 ³ lbs/in)	2 423	2 422	2 421	2 421	2 420	2 419	2 419	2 418	2 417
24/6	Strength, (lbs/ft)	3 058	3 044	3 031	3 020	3 009	2 999	2 990	2 981	2 973
	Stiffness, G', (10 ³ lbs/in)	2 440	2 439	2 437	2 436	2 435	2 434	2 433	2 432	2 431

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 0.76 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)									
			900	1 050	1 200	1 350	1 500	1 650	1 800	1 950	2 100	
914/4	900	Strength, (kN/m)	5.0	4.4	4.0	3.6	3.3	3.0	2.8	2.6	2.4	
		Stiffness, G', (10 ³ N/mm)	1.6	1.9	2.1	2.2	2.4	2.5	2.6	2.7	2.8	
	600	Strength, (kN/m)	5.1	4.6	4.2	3.9	3.5	3.3	3.0	2.9	2.7	
		Stiffness, G', (10 ³ N/mm)	1.6	1.9	2.1	2.2	2.4	2.5	2.6	2.7	2.8	
	300	Strength, (kN/m)	5.7	5.2	4.8	4.5	4.3	4.0	3.9	3.7	3.5	
		Stiffness, G', (10 ³ N/mm)	1.7	1.9	2.1	2.2	2.4	2.5	2.7	2.8	2.9	
	230	Strength, (kN/m)	6.0	5.5	5.2	4.9	4.6	4.4	4.3	4.1	4.0	
		Stiffness, G', (10 ³ N/mm)	1.7	1.9	2.1	2.2	2.4	2.5	2.7	2.8	2.9	
	150	Strength, (kN/m)	6.6	6.2	5.9	5.6	5.4	5.2	5.1	5.0	4.8	
		Stiffness, G', (10 ³ N/mm)	1.7	1.9	2.1	2.3	2.4	2.6	2.7	2.8	2.9	
	914/7	900	Strength, (kN/m)	7.3	6.4	5.7	5.1	4.6	4.2	3.9	3.6	3.4
			Stiffness, G', (10 ³ N/mm)	8.6	8.9	9.0	9.1	9.0	8.9	8.7	8.6	8.4
600		Strength, (kN/m)	7.5	6.7	6.0	5.4	4.9	4.5	4.2	3.9	3.6	
		Stiffness, G', (10 ³ N/mm)	8.6	8.9	9.1	9.1	9.0	8.9	8.8	8.6	8.4	
300		Strength, (kN/m)	8.2	7.4	6.7	6.2	5.7	5.3	5.0	4.7	4.4	
		Stiffness, G', (10 ³ N/mm)	8.6	9.0	9.1	9.2	9.2	9.1	8.9	8.8	8.6	
230		Strength, (kN/m)	8.6	7.8	7.1	6.6	6.2	5.8	5.5	5.2	4.9	
		Stiffness, G', (10 ³ N/mm)	8.6	9.0	9.2	9.2	9.2	9.1	9.0	8.9	8.7	
150		Strength, (kN/m)	9.4	8.7	8.1	7.6	7.2	6.8	6.5	6.3	6.1	
		Stiffness, G', (10 ³ N/mm)	8.7	9.1	9.3	9.3	9.3	9.3	9.2	9.1	8.9	
914/9		900	Strength, (kN/m)	11.4	10.1	9.1	8.1	7.3	6.7	6.1	5.6	5.2
			Stiffness, G', (10 ³ N/mm)	9.4	9.9	10.3	10.5	10.6	10.6	10.6	10.5	10.4
	600	Strength, (kN/m)	11.6	10.3	9.3	8.4	7.6	6.9	6.4	5.9	5.5	
		Stiffness, G', (10 ³ N/mm)	9.4	9.9	10.3	10.5	10.6	10.7	10.6	10.5	10.4	
	300	Strength, (kN/m)	12.2	10.9	9.9	9.1	8.4	7.7	7.2	6.7	6.3	
		Stiffness, G', (10 ³ N/mm)	9.4	10.0	10.3	10.6	10.7	10.7	10.7	10.6	10.5	
	230	Strength, (kN/m)	12.5	11.3	10.3	9.5	8.9	8.2	7.7	7.2	6.8	
		Stiffness, G', (10 ³ N/mm)	9.4	10.0	10.4	10.6	10.7	10.8	10.8	10.7	10.6	
	150	Strength, (kN/m)	13.2	12.1	11.2	10.4	9.8	9.2	8.8	8.3	7.9	
		Stiffness, G', (10 ³ N/mm)	9.5	10.0	10.4	10.7	10.8	10.9	10.9	10.8	10.7	

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 0.91 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)									
			1 200	1 350	1 500	1 650	1 800	1 950	2 100	2 250	2 400	
914/4	900	Strength, (kN/m)	4.8	4.4	4.0	3.7	3.4	3.2	3.0	2.8	2.7	
		Stiffness, G', (10 ³ N/mm)	3.0	3.2	3.4	3.6	3.7	3.8	3.8	3.9	3.9	
	600	Strength, (kN/m)	5.1	4.7	4.4	4.1	3.8	3.6	3.4	3.2	3.1	
		Stiffness, G', (10 ³ N/mm)	3.0	3.3	3.4	3.6	3.7	3.8	3.9	3.9	4.0	
	300	Strength, (kN/m)	6.0	5.6	5.3	5.1	4.9	4.7	4.5	4.4	4.2	
		Stiffness, G', (10 ³ N/mm)	3.1	3.3	3.5	3.6	3.8	3.9	3.9	4.0	4.1	
	230	Strength, (kN/m)	6.5	6.1	5.9	5.6	5.4	5.3	5.1	5.0	4.9	
		Stiffness, G', (10 ³ N/mm)	3.1	3.3	3.5	3.6	3.8	3.9	4.0	4.1	4.1	
	150	Strength, (kN/m)	7.4	7.2	6.9	6.7	6.6	6.4	6.3	6.2	6.1	
		Stiffness, G', (10 ³ N/mm)	3.1	3.3	3.5	3.7	3.8	4.0	4.1	4.2	4.2	
	914/7	900	Strength, (kN/m)	6.8	6.1	5.6	5.1	4.7	4.4	4.1	3.9	3.7
			Stiffness, G', (10 ³ N/mm)	11.6	11.5	11.3	11.0	10.7	10.3	10.0	9.7	9.4
600		Strength, (kN/m)	7.2	6.5	6.0	5.5	5.1	4.8	4.5	4.3	4.1	
		Stiffness, G', (10 ³ N/mm)	11.7	11.5	11.3	11.0	10.7	10.4	10.1	9.8	9.5	
300		Strength, (kN/m)	8.2	7.6	7.1	6.7	6.3	5.9	5.7	5.4	5.2	
		Stiffness, G', (10 ³ N/mm)	11.8	11.7	11.5	11.2	10.9	10.6	10.3	10.0	9.7	
230		Strength, (kN/m)	8.8	8.2	7.8	7.4	7.0	6.7	6.4	6.1	5.9	
		Stiffness, G', (10 ³ N/mm)	11.8	11.7	11.5	11.3	11.0	10.7	10.4	10.2	9.9	
150		Strength, (kN/m)	10.2	9.6	9.1	8.7	8.4	8.1	7.9	7.7	7.5	
		Stiffness, G', (10 ³ N/mm)	12.0	11.9	11.7	11.5	11.3	11.0	10.7	10.5	10.2	
914/9		900	Strength, (kN/m)	10.8	9.8	8.8	8.1	7.4	6.9	6.4	6.0	5.6
			Stiffness, G', (10 ³ N/mm)	13.6	13.7	13.6	13.4	13.2	13.0	12.7	12.4	12.1
	600	Strength, (kN/m)	11.2	10.2	9.2	8.5	7.8	7.2	6.8	6.4	6.0	
		Stiffness, G', (10 ³ N/mm)	13.6	13.7	13.6	13.5	13.3	13.0	12.7	12.5	12.2	
	300	Strength, (kN/m)	12.1	11.1	10.3	9.6	9.0	8.4	7.9	7.5	7.2	
		Stiffness, G', (10 ³ N/mm)	13.7	13.8	13.7	13.6	13.4	13.2	12.9	12.6	12.4	
	230	Strength, (kN/m)	12.6	11.7	10.9	10.3	9.7	9.1	8.6	8.2	7.9	
		Stiffness, G', (10 ³ N/mm)	13.7	13.8	13.8	13.7	13.5	13.3	13.0	12.7	12.5	
	150	Strength, (kN/m)	13.8	12.9	12.2	11.6	11.1	10.6	10.2	9.8	9.5	
		Stiffness, G', (10 ³ N/mm)	13.8	13.9	13.9	13.8	13.7	13.5	13.2	13.0	12.7	

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 1.21 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)									
			1 500	1 650	1 800	1 950	2 100	2 250	2 400	2 550	2 700	
914/4	900	Strength, (kN/m)	5.4	5.0	4.7	4.4	4.2	4.0	3.8	3.6	3.5	
		Stiffness, G', (10 ³ N/mm)	5.8	5.9	5.9	6.0	6.0	5.9	5.9	5.8	5.7	
	600	Strength, (kN/m)	6.1	5.7	5.4	5.1	4.9	4.7	4.5	4.3	4.2	
		Stiffness, G', (10 ³ N/mm)	5.8	5.9	6.0	6.0	6.0	6.0	5.9	5.9	5.8	
	300	Strength, (kN/m)	7.7	7.4	7.1	6.9	6.7	6.5	6.4	6.3	6.1	
		Stiffness, G', (10 ³ N/mm)	5.9	6.0	6.1	6.1	6.2	6.2	6.1	6.1	6.0	
	230	Strength, (kN/m)	8.5	8.3	8.0	7.8	7.7	7.5	7.4	7.2	7.1	
		Stiffness, G', (10 ³ N/mm)	5.9	6.1	6.2	6.2	6.3	6.3	6.2	6.2	6.2	
	150	Strength, (kN/m)	10.2	10.0	9.8	9.7	9.5	9.4	9.3	9.2	9.1	
		Stiffness, G', (10 ³ N/mm)	6.0	6.2	6.3	6.4	6.4	6.5	6.5	6.5	6.5	
	914/7	900	Strength, (kN/m)	7.5	6.9	6.4	6.0	5.7	5.4	5.1	4.9	4.6
			Stiffness, G', (10 ³ N/mm)	15.2	14.6	14.0	13.4	12.9	12.3	11.8	11.4	11.0
600		Strength, (kN/m)	8.2	7.6	7.1	6.7	6.4	6.1	5.8	5.6	5.3	
		Stiffness, G', (10 ³ N/mm)	15.3	14.7	14.1	13.5	13.0	12.5	12.0	11.5	11.1	
300		Strength, (kN/m)	10.2	9.6	9.2	8.8	8.4	8.1	7.9	7.6	7.4	
		Stiffness, G', (10 ³ N/mm)	15.6	15.0	14.4	13.8	13.3	12.8	12.3	11.9	11.5	
230		Strength, (kN/m)	11.2	10.7	10.3	9.9	9.6	9.4	9.1	8.9	8.7	
		Stiffness, G', (10 ³ N/mm)	15.7	15.1	14.5	14.0	13.5	13.0	12.5	12.1	11.7	
150		Strength, (kN/m)	13.6	13.1	12.7	12.4	12.1	11.8	11.6	11.4	11.2	
		Stiffness, G', (10 ³ N/mm)	16.0	15.5	14.9	14.4	13.9	13.5	13.0	12.6	12.2	
914/9		900	Strength, (kN/m)	11.9	10.9	10.0	9.3	8.7	8.2	7.7	7.3	6.9
			Stiffness, G', (10 ³ N/mm)	19.1	18.5	18.0	17.4	16.8	16.2	15.7	15.2	14.7
	600	Strength, (kN/m)	12.6	11.6	10.7	10.0	9.4	8.9	8.4	8.0	7.6	
		Stiffness, G', (10 ³ N/mm)	19.1	18.6	18.0	17.5	16.9	16.3	15.8	15.3	14.8	
	300	Strength, (kN/m)	14.3	13.5	12.8	12.1	11.5	10.9	10.5	10.1	9.7	
		Stiffness, G', (10 ³ N/mm)	19.3	18.8	18.2	17.7	17.1	16.6	16.1	15.6	15.1	
	230	Strength, (kN/m)	15.3	14.5	13.8	13.2	12.7	12.2	11.7	11.3	10.9	
		Stiffness, G', (10 ³ N/mm)	19.4	18.9	18.4	17.8	17.3	16.8	16.3	15.8	15.3	
	150	Strength, (kN/m)	17.5	16.8	16.1	15.6	15.1	14.7	14.3	13.9	13.6	
		Stiffness, G', (10 ³ N/mm)	19.6	19.2	18.6	18.1	17.6	17.1	16.6	16.2	15.7	

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 1.52 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)									
			1 800	1 950	2 100	2 250	2 400	2 550	2 700	2 850	3 000	
914/4	900	Strength, (kN/m)	6.1	5.8	5.5	5.2	5.0	4.8	4.7	4.5	4.4	
		Stiffness, G', (10 ³ N/mm)	8.2	8.1	8.0	7.8	7.6	7.5	7.3	7.1	7.0	
	600	Strength, (kN/m)	7.1	6.8	6.5	6.3	6.1	5.9	5.7	5.6	5.4	
		Stiffness, G', (10 ³ N/mm)	8.2	8.2	8.0	7.9	7.7	7.6	7.4	7.3	7.1	
	300	Strength, (kN/m)	9.6	9.4	9.2	9.0	8.8	8.7	8.5	8.4	8.3	
		Stiffness, G', (10 ³ N/mm)	8.4	8.4	8.3	8.2	8.0	7.9	7.8	7.6	7.5	
	230	Strength, (kN/m)	10.9	10.7	10.5	10.4	10.2	10.1	10.0	9.9	9.8	
		Stiffness, G', (10 ³ N/mm)	8.5	8.5	8.4	8.3	8.2	8.1	7.9	7.8	7.7	
	150	Strength, (kN/m)	13.4	13.3	13.1	13.0	12.9	12.8	12.7	12.6	12.6	
		Stiffness, G', (10 ³ N/mm)	8.8	8.8	8.7	8.7	8.6	8.5	8.4	8.3	8.2	
	914/7	900	Strength, (kN/m)	8.2	7.7	7.3	6.9	6.6	6.3	6.1	5.9	5.7
			Stiffness, G', (10 ³ N/mm)	16.8	16.0	15.3	14.6	13.9	13.3	12.8	12.3	11.8
600		Strength, (kN/m)	9.3	8.8	8.4	8.0	7.7	7.4	7.2	6.9	6.7	
		Stiffness, G', (10 ³ N/mm)	17.0	16.1	15.4	14.7	14.1	13.5	13.0	12.5	12.0	
300		Strength, (kN/m)	12.4	11.9	11.5	11.2	10.9	10.6	10.4	10.2	10.0	
		Stiffness, G', (10 ³ N/mm)	17.3	16.5	15.8	15.1	14.5	13.9	13.4	12.9	12.5	
230		Strength, (kN/m)	14.0	13.6	13.3	12.9	12.7	12.4	12.2	12.0	11.8	
		Stiffness, G', (10 ³ N/mm)	17.5	16.8	16.1	15.4	14.8	14.2	13.7	13.2	12.8	
150		Strength, (kN/m)	17.6	17.3	16.9	16.7	16.4	16.2	16.0	15.8	15.6	
		Stiffness, G', (10 ³ N/mm)	18.0	17.3	16.6	16.0	15.4	14.8	14.3	13.9	13.4	
914/9		900	Strength, (kN/m)	12.7	11.8	11.1	10.4	9.9	9.4	8.9	8.5	8.2
			Stiffness, G', (10 ³ N/mm)	22.1	21.2	20.3	19.5	18.8	18.1	17.4	16.8	16.2
	600	Strength, (kN/m)	13.8	12.9	12.2	11.5	11.0	10.5	10.0	9.6	9.3	
		Stiffness, G', (10 ³ N/mm)	22.2	21.3	20.4	19.7	18.9	18.2	17.6	16.9	16.4	
	300	Strength, (kN/m)	16.7	16.0	15.3	14.8	14.2	13.7	13.3	12.9	12.5	
		Stiffness, G', (10 ³ N/mm)	22.4	21.6	20.8	20.0	19.3	18.6	17.9	17.3	16.8	
	230	Strength, (kN/m)	18.3	17.6	17.0	16.5	16.0	15.6	15.2	14.8	14.5	
		Stiffness, G', (10 ³ N/mm)	22.6	21.8	21.0	20.2	19.5	18.8	18.2	17.6	17.0	
	150	Strength, (kN/m)	21.8	21.1	20.6	20.1	19.7	19.3	18.9	18.6	18.3	
		Stiffness, G', (10 ³ N/mm)	23.0	22.2	21.4	20.7	20.0	19.3	18.7	18.1	17.6	

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 0.76 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)									
			900	1 050	1 200	1 350	1 500	1 650	1 800	1 950	2 100	
914/4	900	Strength, (kN/m)	5.0	4.5	4.2	4.0	3.7	3.5	3.3	3.2	3.0	
		Stiffness, G', (10 ³ N/mm)	1.6	1.9	2.1	2.2	2.4	2.6	2.7	2.8	2.9	
	600	Strength, (kN/m)	5.5	5.1	4.8	4.6	4.4	4.2	4.1	4.0	3.8	
		Stiffness, G', (10 ³ N/mm)	1.7	1.9	2.1	2.3	2.5	2.6	2.8	2.9	3.0	
	300	Strength, (kN/m)	6.9	6.6	6.4	6.2	6.0	5.9	5.8	5.7	5.6	
		Stiffness, G', (10 ³ N/mm)	1.7	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.2	
	230	Strength, (kN/m)	7.5	7.3	7.1	7.0	6.8	6.7	6.6	6.6	6.5	
		Stiffness, G', (10 ³ N/mm)	1.7	1.9	2.2	2.4	2.6	2.8	3.0	3.2	3.3	
	150	Strength, (kN/m)	8.6	8.4	8.3	8.2	8.1	8.1	8.0	8.0	7.9	
		Stiffness, G', (10 ³ N/mm)	1.7	2.0	2.2	2.4	2.7	2.9	3.1	3.3	3.5	
	914/7	900	Strength, (kN/m)	7.3	6.6	6.0	5.4	5.0	4.7	4.4	4.2	4.0
			Stiffness, G', (10 ³ N/mm)	8.6	8.9	9.1	9.2	9.3	9.2	9.1	9.0	8.9
600		Strength, (kN/m)	8.0	7.3	6.7	6.3	5.8	5.5	5.2	5.0	4.8	
		Stiffness, G', (10 ³ N/mm)	8.7	9.1	9.4	9.5	9.6	9.6	9.6	9.5	9.4	
300		Strength, (kN/m)	9.8	9.2	8.7	8.3	8.0	7.7	7.5	7.3	7.1	
		Stiffness, G', (10 ³ N/mm)	9.0	9.5	9.9	10.2	10.4	10.5	10.6	10.7	10.7	
230		Strength, (kN/m)	10.9	10.3	9.8	9.4	9.1	8.9	8.7	8.5	8.3	
		Stiffness, G', (10 ³ N/mm)	9.1	9.7	10.2	10.5	10.8	11.0	11.1	11.3	11.3	
150		Strength, (kN/m)	12.9	12.4	12.0	11.7	11.5	11.2	11.1	10.9	10.8	
		Stiffness, G', (10 ³ N/mm)	9.4	10.1	10.7	11.1	11.5	11.8	12.1	12.3	12.5	
914/9		900	Strength, (kN/m)	11.4	10.2	9.3	8.5	7.8	7.2	6.7	6.2	5.9
			Stiffness, G', (10 ³ N/mm)	9.4	10.0	10.4	10.6	10.8	10.8	10.8	10.8	10.8
	600	Strength, (kN/m)	12.0	10.9	9.9	9.2	8.6	8.0	7.5	7.0	6.7	
		Stiffness, G', (10 ³ N/mm)	9.5	10.1	10.5	10.8	11.0	11.1	11.1	11.1	11.1	
	300	Strength, (kN/m)	13.6	12.6	11.7	11.1	10.5	10.1	9.7	9.3	9.0	
		Stiffness, G', (10 ³ N/mm)	9.6	10.3	10.8	11.2	11.5	11.7	11.9	12.0	12.0	
	230	Strength, (kN/m)	14.5	13.5	12.8	12.1	11.6	11.2	10.8	10.5	10.2	
		Stiffness, G', (10 ³ N/mm)	9.7	10.4	11.0	11.4	11.8	12.0	12.2	12.4	12.5	
	150	Strength, (kN/m)	16.2	15.4	14.8	14.3	13.8	13.5	13.1	12.9	12.6	
		Stiffness, G', (10 ³ N/mm)	9.9	10.7	11.3	11.8	12.3	12.6	12.9	13.2	13.4	

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 0.91 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)									
			1 200	1 350	1 500	1 650	1 800	1 950	2 100	2 250	2 400	
914/4	900	Strength, (kN/m)	5.0	4.7	4.5	4.2	4.0	3.8	3.7	3.5	3.4	
		Stiffness, G', (10 ³ N/mm)	3.1	3.3	3.5	3.7	3.8	4.0	4.1	4.2	4.3	
	600	Strength, (kN/m)	5.8	5.5	5.2	5.0	4.9	4.7	4.6	4.5	4.4	
		Stiffness, G', (10 ³ N/mm)	3.1	3.3	3.6	3.8	4.0	4.1	4.3	4.4	4.5	
	300	Strength, (kN/m)	7.6	7.4	7.2	7.1	6.9	6.8	6.7	6.6	6.6	
		Stiffness, G', (10 ³ N/mm)	3.2	3.5	3.8	4.0	4.2	4.4	4.6	4.8	5.0	
	230	Strength, (kN/m)	8.5	8.3	8.2	8.0	7.9	7.8	7.8	7.7	7.6	
		Stiffness, G', (10 ³ N/mm)	3.2	3.5	3.8	4.1	4.4	4.6	4.8	5.0	5.2	
	150	Strength, (kN/m)	9.9	9.8	9.7	9.7	9.6	9.5	9.5	9.4	9.4	
		Stiffness, G', (10 ³ N/mm)	3.3	3.6	4.0	4.3	4.5	4.8	5.1	5.3	5.6	
	914/7	900	Strength, (kN/m)	7.1	6.5	6.0	5.6	5.3	5.0	4.8	4.6	4.4
			Stiffness, G', (10 ³ N/mm)	11.8	11.7	11.6	11.4	11.2	11.0	10.8	10.5	10.3
600		Strength, (kN/m)	8.0	7.5	7.0	6.6	6.3	6.0	5.8	5.5	5.4	
		Stiffness, G', (10 ³ N/mm)	12.1	12.1	12.1	11.9	11.8	11.6	11.4	11.3	11.1	
300		Strength, (kN/m)	10.4	9.9	9.5	9.2	8.9	8.7	8.5	8.3	8.2	
		Stiffness, G', (10 ³ N/mm)	13.0	13.1	13.2	13.3	13.3	13.2	13.2	13.1	13.0	
230		Strength, (kN/m)	11.7	11.3	10.9	10.6	10.4	10.1	9.9	9.8	9.6	
		Stiffness, G', (10 ³ N/mm)	13.4	13.7	13.8	14.0	14.0	14.1	14.1	14.1	14.1	
150		Strength, (kN/m)	14.4	14.0	13.7	13.5	13.2	13.1	12.9	12.8	12.6	
		Stiffness, G', (10 ³ N/mm)	14.2	14.6	15.0	15.2	15.4	15.6	15.7	15.9	15.9	
914/9		900	Strength, (kN/m)	11.1	10.2	9.3	8.6	8.0	7.5	7.0	6.7	6.3
			Stiffness, G', (10 ³ N/mm)	13.7	13.8	13.8	13.7	13.6	13.4	13.2	13.0	12.8
	600	Strength, (kN/m)	11.9	11.0	10.2	9.6	9.0	8.5	8.0	7.6	7.3	
		Stiffness, G', (10 ³ N/mm)	13.9	14.1	14.1	14.1	14.0	13.9	13.7	13.6	13.4	
	300	Strength, (kN/m)	14.0	13.2	12.6	12.0	11.5	11.1	10.8	10.5	10.2	
		Stiffness, G', (10 ³ N/mm)	14.4	14.7	14.9	15.0	15.1	15.1	15.0	15.0	14.9	
	230	Strength, (kN/m)	15.2	14.5	13.9	13.4	12.9	12.5	12.2	11.9	11.6	
		Stiffness, G', (10 ³ N/mm)	14.7	15.1	15.3	15.5	15.6	15.7	15.7	15.7	15.7	
	150	Strength, (kN/m)	17.7	17.1	16.5	16.1	15.7	15.4	15.1	14.8	13.0	
		Stiffness, G', (10 ³ N/mm)	15.3	15.8	16.2	16.5	16.7	16.9	17.0	17.2	17.2	

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 1.21 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)									
			1 500	1 650	1 800	1 950	2 100	2 250	2 400	2 550	2 700	
914/4	900	Strength, (kN/m)	5.9	5.6	5.3	5.1	4.9	4.7	4.6	4.4	4.3	
		Stiffness, G', (10 ³ N/mm)	5.9	6.1	6.3	6.4	6.5	6.5	6.5	6.6	6.6	
	600	Strength, (kN/m)	6.9	6.7	6.4	6.3	6.1	5.9	5.8	5.7	5.6	
		Stiffness, G', (10 ³ N/mm)	6.2	6.4	6.6	6.7	6.9	7.0	7.0	7.1	7.2	
	300	Strength, (kN/m)	9.5	9.4	9.2	9.0	8.9	8.8	8.7	8.6	8.5	
		Stiffness, G', (10 ³ N/mm)	6.6	7.0	7.3	7.5	7.8	8.0	8.2	8.4	8.5	
	230	Strength, (kN/m)	10.8	10.6	10.5	10.4	10.3	10.2	10.1	10.0	10.0	
		Stiffness, G', (10 ³ N/mm)	6.8	7.2	7.6	7.9	8.2	8.4	8.7	8.9	9.1	
	150	Strength, (kN/m)	12.9	12.8	12.7	12.6	12.5	12.5	12.4	12.4	12.3	
		Stiffness, G', (10 ³ N/mm)	7.2	7.7	8.1	8.5	8.8	9.2	9.5	9.8	10.1	
	914/7	900	Strength, (kN/m)	8.0	7.5	7.1	6.7	6.4	6.1	5.9	5.6	5.5
			Stiffness, G', (10 ³ N/mm)	15.8	15.3	14.8	14.4	13.9	13.5	13.2	12.8	12.5
600		Strength, (kN/m)	9.3	8.8	8.4	8.0	7.7	7.4	7.2	6.9	6.8	
		Stiffness, G', (10 ³ N/mm)	16.5	16.1	15.7	15.3	14.9	14.6	14.2	13.9	13.6	
300		Strength, (kN/m)	12.6	12.2	11.8	11.5	11.2	11.0	10.8	10.6	10.5	
		Stiffness, G', (10 ³ N/mm)	18.5	18.3	18.0	17.8	17.6	17.3	17.1	16.9	16.7	
230		Strength, (kN/m)	14.4	14.1	13.7	13.4	13.2	13.0	12.8	12.6	12.4	
		Stiffness, G', (10 ³ N/mm)	19.5	19.4	19.2	19.1	18.9	18.8	18.6	18.5	18.3	
150		Strength, (kN/m)	18.2	17.8	17.5	17.3	17.1	16.9	16.8	16.6	15.9	
		Stiffness, G', (10 ³ N/mm)	21.5	21.6	21.6	21.6	21.6	21.6	21.5	21.5	21.5	
914/9		900	Strength, (kN/m)	12.4	11.4	10.6	10.0	9.4	8.9	8.5	8.1	7.7
			Stiffness, G', (10 ³ N/mm)	19.5	19.0	18.6	18.1	17.6	17.2	16.8	16.3	15.9
	600	Strength, (kN/m)	13.5	12.7	11.9	11.3	10.7	10.2	9.8	9.4	9.0	
		Stiffness, G', (10 ³ N/mm)	20.0	19.6	19.2	18.8	18.4	18.0	17.6	17.2	16.9	
	300	Strength, (kN/m)	16.6	15.9	15.3	14.7	14.3	13.9	13.5	13.2	12.9	
		Stiffness, G', (10 ³ N/mm)	21.4	21.2	21.0	20.7	20.5	20.2	19.9	19.7	19.4	
	230	Strength, (kN/m)	18.4	17.7	17.1	16.6	16.1	15.8	15.4	15.1	14.8	
		Stiffness, G', (10 ³ N/mm)	22.2	22.1	21.9	21.8	21.6	21.4	21.2	21.0	20.8	
	150	Strength, (kN/m)	21.9	21.3	20.8	20.4	20.0	19.7	19.4	17.8	15.9	
		Stiffness, G', (10 ³ N/mm)	23.7	23.8	23.8	23.8	23.8	23.7	23.6	23.5	23.5	

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 1.52 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)								
			1 800	1 950	2 100	2 250	2 400	2 550	2 700	2 850	3 000
914/4	900	Strength, (kN/m)	6.6	6.3	6.1	5.9	5.7	5.5	5.4	5.2	5.1
		Stiffness, G', (10 ³ N/mm)	8.7	8.8	8.8	8.7	8.7	8.6	8.6	8.5	8.4
	600	Strength, (kN/m)	8.0	7.8	7.6	7.4	7.2	7.1	7.0	6.8	6.7
		Stiffness, G', (10 ³ N/mm)	9.3	9.4	9.4	9.5	9.5	9.5	9.5	9.5	9.4
	300	Strength, (kN/m)	11.4	11.2	11.1	10.9	10.8	10.7	10.6	10.5	10.4
		Stiffness, G', (10 ³ N/mm)	10.5	10.8	11.0	11.2	11.4	11.5	11.6	11.8	11.8
	230	Strength, (kN/m)	13.0	12.9	12.8	12.6	12.5	12.5	12.4	12.3	12.2
		Stiffness, G', (10 ³ N/mm)	11.1	11.5	11.8	12.0	12.3	12.5	12.7	12.8	13.0
	150	Strength, (kN/m)	15.7	15.6	15.6	15.5	15.4	15.4	15.3	15.3	15.2
		Stiffness, G', (10 ³ N/mm)	12.1	12.6	13.0	13.4	13.8	14.1	14.4	14.7	15.0
914/7	900	Strength, (kN/m)	8.8	8.3	7.9	7.6	7.3	7.0	6.8	6.6	6.4
		Stiffness, G', (10 ³ N/mm)	17.9	17.3	16.7	16.1	15.6	15.1	14.6	14.2	13.8
	600	Strength, (kN/m)	10.4	9.9	9.5	9.2	8.9	8.7	8.4	8.2	8.0
		Stiffness, G', (10 ³ N/mm)	19.1	18.5	17.9	17.4	16.9	16.5	16.1	15.7	15.4
	300	Strength, (kN/m)	14.7	14.3	14.0	13.7	13.4	13.2	13.0	12.8	12.7
		Stiffness, G', (10 ³ N/mm)	22.2	21.8	21.3	21.0	20.6	20.3	20.0	19.7	19.4
	230	Strength, (kN/m)	17.0	16.7	16.4	16.1	15.9	15.7	15.5	15.3	15.2
		Stiffness, G', (10 ³ N/mm)	23.9	23.5	23.2	22.9	22.6	22.3	22.0	21.8	21.6
	150	Strength, (kN/m)	21.8	21.5	21.3	21.0	20.8	20.7	20.5	19.9	18.0
		Stiffness, G', (10 ³ N/mm)	27.2	27.0	26.8	26.6	26.5	26.3	26.2	26.0	25.9
914/9	900	Strength, (kN/m)	13.2	12.4	11.7	11.1	10.6	10.1	9.7	9.3	8.9
		Stiffness, G', (10 ³ N/mm)	22.9	22.2	21.5	20.8	20.1	19.5	19.0	18.5	18.0
	600	Strength, (kN/m)	14.9	14.0	13.3	12.7	12.2	11.7	11.3	10.9	10.6
		Stiffness, G', (10 ³ N/mm)	23.8	23.1	22.5	21.9	21.3	20.7	20.2	19.7	19.3
	300	Strength, (kN/m)	18.9	18.3	17.7	17.2	16.7	16.3	16.0	15.7	15.4
		Stiffness, G', (10 ³ N/mm)	26.3	25.8	25.3	24.8	24.3	23.9	23.5	23.1	22.8
	230	Strength, (kN/m)	21.2	20.6	20.0	19.6	19.1	18.8	18.4	18.1	17.9
		Stiffness, G', (10 ³ N/mm)	27.6	27.2	26.8	26.4	26.0	25.6	25.3	25.0	24.7
	150	Strength, (kN/m)	25.8	25.3	24.8	24.4	24.1	23.8	22.2	19.9	18.0
		Stiffness, G', (10 ³ N/mm)	30.3	30.0	29.8	29.6	29.3	29.1	28.9	28.7	28.5

76 mm deck - 610 mm wide - 152 mm flute spacing

Thickness = 0.76 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)								
			2 400	2 550	2 700	2 850	3 000	3 150	3 300	3 450	3 600
610/3	900	Strength, (kN/m)	1.9	1.8	1.8	1.7	1.6	1.6	1.5	1.5	1.5
		Stiffness, G', (10 ³ N/mm)	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	600	Strength, (kN/m)	2.2	2.1	2.0	2.0	1.9	1.9	1.8	1.8	1.7
		Stiffness, G', (10 ³ N/mm)	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
	300	Strength, (kN/m)	3.0	2.9	2.8	2.8	2.7	2.7	2.6	2.6	2.5
		Stiffness, G', (10 ³ N/mm)	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7
	230	Strength, (kN/m)	3.5	3.4	3.3	3.3	3.2	3.2	3.1	3.1	3.0
		Stiffness, G', (10 ³ N/mm)	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7
	150	Strength, (kN/m)	4.5	4.4	4.3	4.3	4.2	4.2	4.1	4.1	4.0
		Stiffness, G', (10 ³ N/mm)	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.9
610/5	900	Strength, (kN/m)	2.4	2.3	2.2	2.1	2.0	2.0	1.9	1.8	1.8
		Stiffness, G', (10 ³ N/mm)	4.7	4.5	4.4	4.2	4.1	3.9	3.8	3.7	3.6
	600	Strength, (kN/m)	2.7	2.6	2.5	2.4	2.3	2.2	2.2	2.1	2.0
		Stiffness, G', (10 ³ N/mm)	4.8	4.6	4.4	4.3	4.1	4.0	3.9	3.8	3.6
	300	Strength, (kN/m)	3.5	3.4	3.3	3.2	3.1	3.0	3.0	2.9	2.9
		Stiffness, G', (10 ³ N/mm)	5.0	4.8	4.6	4.5	4.4	4.2	4.1	4.0	3.9
	230	Strength, (kN/m)	4.0	3.9	3.8	3.7	3.6	3.5	3.5	3.4	3.3
		Stiffness, G', (10 ³ N/mm)	5.1	4.9	4.8	4.6	4.5	4.4	4.2	4.1	4.0
	150	Strength, (kN/m)	5.1	5.0	4.9	4.8	4.7	4.6	4.6	4.5	4.5
		Stiffness, G', (10 ³ N/mm)	5.3	5.2	5.0	4.9	4.8	4.6	4.5	4.4	4.3
610/7	900	Strength, (kN/m)	4.0	3.8	3.6	3.4	3.3	3.2	3.0	2.9	2.8
		Stiffness, G', (10 ³ N/mm)	6.7	6.5	6.3	6.1	5.9	5.8	5.6	5.4	5.3
	600	Strength, (kN/m)	4.3	4.0	3.9	3.7	3.6	3.4	3.3	3.2	3.1
		Stiffness, G', (10 ³ N/mm)	6.7	6.5	6.3	6.1	6.0	5.8	5.7	5.5	5.4
	300	Strength, (kN/m)	5.1	4.9	4.7	4.5	4.4	4.2	4.1	4.0	3.9
		Stiffness, G', (10 ³ N/mm)	6.8	6.7	6.5	6.3	6.1	6.0	5.8	5.7	5.5
	230	Strength, (kN/m)	5.6	5.3	5.2	5.0	4.9	4.7	4.6	4.5	4.4
		Stiffness, G', (10 ³ N/mm)	6.9	6.7	6.6	6.4	6.2	6.1	5.9	5.8	5.7
	150	Strength, (kN/m)	6.7	6.5	6.3	6.1	6.0	5.9	5.7	5.6	5.5
		Stiffness, G', (10 ³ N/mm)	7.1	6.9	6.8	6.6	6.5	6.3	6.2	6.0	5.9

76 mm deck - 610 mm wide - 152 mm flute spacing

Thickness = 0.91 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)									
			2 700	2 850	3 000	3 150	3 300	3 450	3 600	3 750	3 900	
610/3	900	Strength, (kN/m)	2.2	2.1	2.1	2.0	1.9	1.9	1.8	1.8	1.8	
		Stiffness, G', (10 ³ N/mm)	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	
	600	Strength, (kN/m)	2.6	2.5	2.4	2.4	2.3	2.3	2.2	2.2	2.2	
		Stiffness, G', (10 ³ N/mm)	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	
	300	Strength, (kN/m)	3.8	3.7	3.6	3.5	3.5	3.4	3.4	3.4	3.3	
		Stiffness, G', (10 ³ N/mm)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	
	230	Strength, (kN/m)	4.5	4.4	4.3	4.3	4.2	4.2	4.1	4.1	4.0	
		Stiffness, G', (10 ³ N/mm)	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	
	150	Strength, (kN/m)	5.7	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.3	
		Stiffness, G', (10 ³ N/mm)	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	
	610/5	900	Strength, (kN/m)	2.7	2.6	2.5	2.4	2.3	2.3	2.2	2.2	2.1
			Stiffness, G', (10 ³ N/mm)	5.0	4.8	4.6	4.4	4.3	4.1	4.0	3.9	3.8
600		Strength, (kN/m)	3.1	3.0	2.9	2.8	2.7	2.7	2.6	2.5	2.5	
		Stiffness, G', (10 ³ N/mm)	5.1	4.9	4.7	4.5	4.4	4.2	4.1	4.0	3.9	
300		Strength, (kN/m)	4.2	4.1	4.1	4.0	3.9	3.8	3.8	3.7	3.7	
		Stiffness, G', (10 ³ N/mm)	5.3	5.1	4.9	4.8	4.6	4.5	4.4	4.3	4.1	
230		Strength, (kN/m)	5.0	4.9	4.8	4.7	4.6	4.5	4.5	4.4	4.4	
		Stiffness, G', (10 ³ N/mm)	5.4	5.3	5.1	4.9	4.8	4.7	4.5	4.4	4.3	
150		Strength, (kN/m)	6.6	6.5	6.4	6.3	6.2	6.2	6.1	6.0	6.0	
		Stiffness, G', (10 ³ N/mm)	5.8	5.6	5.4	5.3	5.1	5.0	4.9	4.8	4.7	
610/7		900	Strength, (kN/m)	4.4	4.2	4.0	3.9	3.7	3.6	3.5	3.4	3.3
			Stiffness, G', (10 ³ N/mm)	7.3	7.0	6.8	6.6	6.4	6.2	6.0	5.9	5.7
	600	Strength, (kN/m)	4.8	4.6	4.4	4.3	4.1	4.0	3.9	3.8	3.7	
		Stiffness, G', (10 ³ N/mm)	7.3	7.1	6.9	6.7	6.5	6.3	6.1	5.9	5.8	
	300	Strength, (kN/m)	5.9	5.7	5.6	5.4	5.3	5.1	5.0	4.9	4.8	
		Stiffness, G', (10 ³ N/mm)	7.5	7.3	7.1	6.9	6.7	6.5	6.3	6.2	6.0	
	230	Strength, (kN/m)	6.6	6.5	6.3	6.1	6.0	5.9	5.7	5.6	5.5	
		Stiffness, G', (10 ³ N/mm)	7.6	7.4	7.2	7.0	6.8	6.6	6.5	6.3	6.2	
	150	Strength, (kN/m)	8.3	8.1	7.9	7.7	7.6	7.5	7.4	7.3	7.2	
		Stiffness, G', (10 ³ N/mm)	7.9	7.7	7.5	7.3	7.1	6.9	6.8	6.6	6.5	

76 mm deck - 610 mm wide - 152 mm flute spacing

Thickness = 1.21 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)									
			3 000	3 150	3 300	3 450	3 600	3 750	3 900	4 050	4 200	
610/3	900	Strength, (kN/m)	3.0	2.9	2.8	2.8	2.7	2.6	2.6	2.6	2.5	
		Stiffness, G', (10 ³ N/mm)	2.9	2.8	2.8	2.7	2.7	2.6	2.6	2.5	2.5	
	600	Strength, (kN/m)	3.7	3.6	3.5	3.4	3.4	3.3	3.3	3.2	3.2	
		Stiffness, G', (10 ³ N/mm)	3.0	2.9	2.9	2.8	2.8	2.7	2.7	2.6	2.6	
	300	Strength, (kN/m)	5.7	5.6	5.6	5.5	5.5	5.4	5.4	5.3	5.3	
		Stiffness, G', (10 ³ N/mm)	3.1	3.1	3.1	3.0	3.0	2.9	2.9	2.9	2.8	
	230	Strength, (kN/m)	6.8	6.7	6.6	6.6	6.5	6.4	6.4	6.4	6.3	
		Stiffness, G', (10 ³ N/mm)	3.2	3.2	3.2	3.1	3.1	3.1	3.0	3.0	3.0	
	150	Strength, (kN/m)	8.8	8.7	8.7	8.6	8.6	8.5	8.5	8.5	8.4	
		Stiffness, G', (10 ³ N/mm)	3.5	3.4	3.4	3.4	3.4	3.4	3.3	3.3	3.3	
	610/5	900	Strength, (kN/m)	3.5	3.4	3.4	3.3	3.2	3.1	3.0	3.0	2.9
			Stiffness, G', (10 ³ N/mm)	5.5	5.3	5.1	5.0	4.8	4.6	4.5	4.3	4.2
600		Strength, (kN/m)	4.2	4.1	4.0	4.0	3.9	3.8	3.7	3.7	3.6	
		Stiffness, G', (10 ³ N/mm)	5.6	5.4	5.2	5.1	4.9	4.7	4.6	4.5	4.3	
300		Strength, (kN/m)	6.3	6.2	6.1	6.0	5.9	5.9	5.8	5.7	5.7	
		Stiffness, G', (10 ³ N/mm)	6.0	5.8	5.6	5.4	5.2	5.1	4.9	4.8	4.7	
230		Strength, (kN/m)	7.6	7.5	7.4	7.3	7.2	7.1	7.1	7.0	6.9	
		Stiffness, G', (10 ³ N/mm)	6.1	5.9	5.8	5.6	5.4	5.3	5.1	5.0	4.9	
150		Strength, (kN/m)	10.3	10.2	10.1	10.0	9.9	9.9	9.8	9.7	9.7	
		Stiffness, G', (10 ³ N/mm)	6.6	6.4	6.2	6.0	5.9	5.7	5.6	5.5	5.3	
610/7		900	Strength, (kN/m)	5.5	5.3	5.2	5.0	4.9	4.7	4.6	4.5	4.4
			Stiffness, G', (10 ³ N/mm)	8.4	8.1	7.8	7.5	7.3	7.1	6.9	6.7	6.5
	600	Strength, (kN/m)	6.2	6.0	5.9	5.7	5.5	5.4	5.3	5.2	5.0	
		Stiffness, G', (10 ³ N/mm)	8.4	8.2	7.9	7.6	7.4	7.2	7.0	6.8	6.6	
	300	Strength, (kN/m)	8.3	8.1	7.9	7.8	7.6	7.5	7.3	7.2	7.1	
		Stiffness, G', (10 ³ N/mm)	8.7	8.4	8.2	7.9	7.7	7.5	7.3	7.1	6.9	
	230	Strength, (kN/m)	9.6	9.4	9.2	9.0	8.9	8.7	8.6	8.5	8.4	
		Stiffness, G', (10 ³ N/mm)	8.9	8.6	8.3	8.1	7.9	7.6	7.4	7.3	7.1	
	150	Strength, (kN/m)	12.4	12.2	12.1	11.9	11.7	11.6	11.5	11.4	11.3	
		Stiffness, G', (10 ³ N/mm)	9.2	9.0	8.7	8.5	8.2	8.0	7.8	7.7	7.5	

76 mm deck - 610 mm wide - 152 mm flute spacing

Thickness = 1.52 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)								
			3 000	3 450	3 600	3 750	3 900	4 050	4 200	4 350	4 500
610/3	900	Strength, (kN/m)	3.8	3.7	3.7	3.6	3.6	3.5	3.5	3.4	3.4
		Stiffness, G', (10 ³ N/mm)	3.4	3.4	3.3	3.2	3.1	3.1	3.0	2.9	2.9
	600	Strength, (kN/m)	4.9	4.8	4.7	4.7	4.6	4.6	4.5	4.5	4.4
		Stiffness, G', (10 ³ N/mm)	3.5	3.5	3.4	3.3	3.2	3.2	3.1	3.0	3.0
	300	Strength, (kN/m)	7.9	7.8	7.8	7.7	7.7	7.6	7.6	7.5	7.5
		Stiffness, G', (10 ³ N/mm)	3.8	3.7	3.7	3.6	3.5	3.5	3.4	3.4	3.3
	230	Strength, (kN/m)	9.4	9.3	9.3	9.2	9.2	9.1	9.1	9.0	9.0
		Stiffness, G', (10 ³ N/mm)	4.0	3.9	3.9	3.8	3.7	3.7	3.6	3.6	3.5
	150	Strength, (kN/m)	12.3	12.2	12.2	12.1	12.1	12.1	12.0	12.0	12.0
		Stiffness, G', (10 ³ N/mm)	4.3	4.3	4.2	4.2	4.1	4.1	4.0	4.0	3.9
610/5	900	Strength, (kN/m)	4.5	4.4	4.3	4.2	4.1	4.0	4.0	3.9	3.8
		Stiffness, G', (10 ³ N/mm)	5.9	5.6	5.4	5.3	5.1	4.9	4.8	4.6	4.5
	600	Strength, (kN/m)	5.5	5.4	5.4	5.3	5.2	5.1	5.0	5.0	4.9
		Stiffness, G', (10 ³ N/mm)	6.0	5.8	5.6	5.4	5.2	5.1	4.9	4.8	4.6
	300	Strength, (kN/m)	8.8	8.7	8.6	8.5	8.4	8.3	8.3	8.2	8.2
		Stiffness, G', (10 ³ N/mm)	6.4	6.2	6.0	5.8	5.6	5.5	5.3	5.2	5.1
	230	Strength, (kN/m)	10.7	10.6	10.6	10.5	10.4	10.3	10.2	10.2	10.1
		Stiffness, G', (10 ³ N/mm)	6.6	6.4	6.2	6.0	5.9	5.7	5.6	5.4	5.3
	150	Strength, (kN/m)	14.7	14.6	14.5	14.4	14.3	14.3	14.2	14.1	14.1
		Stiffness, G', (10 ³ N/mm)	7.1	6.9	6.7	6.5	6.4	6.2	6.1	6.0	5.8
610/7	900	Strength, (kN/m)	6.7	6.5	6.3	6.2	6.0	5.9	5.7	5.6	5.5
		Stiffness, G', (10 ³ N/mm)	9.0	8.7	8.4	8.1	7.9	7.6	7.4	7.2	7.0
	600	Strength, (kN/m)	7.8	7.6	7.4	7.2	7.1	6.9	6.8	6.7	6.6
		Stiffness, G', (10 ³ N/mm)	9.1	8.8	8.5	8.2	8.0	7.8	7.5	7.3	7.1
	300	Strength, (kN/m)	11.0	10.8	10.6	10.5	10.3	10.2	10.0	9.9	9.8
		Stiffness, G', (10 ³ N/mm)	9.4	9.1	8.8	8.6	8.3	8.1	7.9	7.7	7.5
	230	Strength, (kN/m)	13.0	12.8	12.6	12.4	12.3	12.1	12.0	11.9	11.8
		Stiffness, G', (10 ³ N/mm)	9.6	9.3	9.1	8.8	8.6	8.3	8.1	7.9	7.7
	150	Strength, (kN/m)	17.3	17.1	16.9	16.7	16.6	16.4	16.3	16.2	16.1
		Stiffness, G', (10 ³ N/mm)	10.1	9.8	9.5	9.3	9.0	8.8	8.6	8.4	8.2

76 mm deck - 610 mm wide - 152 mm flute spacing

Thickness = 0.76 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)									
			2 400	2 550	2 700	2 850	3 000	3 150	3 300	3 450	3 600	
610/3	900	Strength, (kN/m)	2.6	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.3	
		Stiffness, G', (10 ³ N/mm)	1.3	1.3	1.3	1.4	1.4	1.5	1.5	1.5	1.6	
	600	Strength, (kN/m)	3.4	3.4	3.3	3.3	3.2	3.2	3.1	3.1	3.1	
		Stiffness, G', (10 ³ N/mm)	1.3	1.4	1.4	1.5	1.5	1.6	1.6	1.6	1.7	
	300	Strength, (kN/m)	5.4	5.3	5.3	5.2	5.2	5.1	5.1	5.1	5.1	
		Stiffness, G', (10 ³ N/mm)	1.4	1.5	1.5	1.6	1.7	1.7	1.8	1.8	1.9	
	230	Strength, (kN/m)	6.3	6.2	6.2	6.1	6.1	6.1	6.1	6.0	6.0	
		Stiffness, G', (10 ³ N/mm)	1.4	1.5	1.6	1.6	1.7	1.8	1.8	1.9	2.0	
	150	Strength, (kN/m)	7.8	7.8	7.7	7.7	7.7	7.7	7.7	7.6	7.6	
		Stiffness, G', (10 ³ N/mm)	1.5	1.6	1.6	1.7	1.8	1.9	1.9	2.0	2.1	
	610/5	900	Strength, (kN/m)	3.1	3.0	2.9	2.8	2.8	2.7	2.7	2.6	2.6
			Stiffness, G', (10 ³ N/mm)	4.3	4.3	4.2	4.2	4.2	4.1	4.1	4.0	4.0
600		Strength, (kN/m)	3.9	3.8	3.7	3.7	3.6	3.5	3.5	3.4	3.4	
		Stiffness, G', (10 ³ N/mm)	4.6	4.6	4.6	4.6	4.6	4.6	4.5	4.5	4.5	
300		Strength, (kN/m)	6.3	6.2	6.1	6.1	6.0	5.9	5.9	5.8	5.8	
		Stiffness, G', (10 ³ N/mm)	5.4	5.5	5.5	5.6	5.6	5.7	5.7	5.7	5.7	
230		Strength, (kN/m)	7.6	7.5	7.4	7.4	7.3	7.2	7.2	7.1	7.1	
		Stiffness, G', (10 ³ N/mm)	5.8	5.9	6.0	6.0	6.1	6.2	6.2	6.3	6.3	
150		Strength, (kN/m)	10.2	10.1	10.0	10.0	9.9	9.9	9.8	9.8	9.8	
		Stiffness, G', (10 ³ N/mm)	6.5	6.6	6.7	6.9	7.0	7.1	7.2	7.3	7.3	
610/7		900	Strength, (kN/m)	4.7	4.5	4.3	4.2	4.1	3.9	3.8	3.7	3.6
			Stiffness, G', (10 ³ N/mm)	5.3	5.3	5.3	5.3	5.3	5.2	5.2	5.2	5.1
	600	Strength, (kN/m)	5.5	5.3	5.1	5.0	4.9	4.7	4.6	4.5	4.5	
		Stiffness, G', (10 ³ N/mm)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.5	5.5	
	300	Strength, (kN/m)	7.9	7.7	7.6	7.4	7.3	7.2	7.1	7.0	6.9	
		Stiffness, G', (10 ³ N/mm)	6.1	6.2	6.3	6.3	6.4	6.4	6.4	6.5	6.5	
	230	Strength, (kN/m)	9.4	9.2	9.0	8.9	8.7	8.6	8.5	8.4	8.3	
		Stiffness, G', (10 ³ N/mm)	6.4	6.5	6.6	6.7	6.7	6.8	6.9	6.9	6.9	
	150	Strength, (kN/m)	12.0	11.8	11.7	11.6	11.5	11.4	11.3	11.2	11.1	
		Stiffness, G', (10 ³ N/mm)	6.9	7.0	7.2	7.3	7.4	7.5	7.6	7.7	7.8	

76 mm deck - 610 mm wide - 152 mm flute spacing

Thickness = 0.91 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)									
			2 700	2 850	3 000	3 150	3 300	3 450	3 600	3 750	3 900	
610/3	900	Strength, (kN/m)	3.0	2.9	2.9	2.8	2.8	2.8	2.7	2.7	2.7	
		Stiffness, G', (10 ³ N/mm)	1.9	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.1	
	600	Strength, (kN/m)	4.0	3.9	3.8	3.8	3.8	3.7	3.7	3.7	3.6	
		Stiffness, G', (10 ³ N/mm)	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.3	2.4	
	300	Strength, (kN/m)	6.3	6.2	6.2	6.2	6.1	6.1	6.1	6.0	6.0	
		Stiffness, G', (10 ³ N/mm)	2.2	2.3	2.4	2.5	2.5	2.6	2.7	2.7	2.8	
	230	Strength, (kN/m)	7.4	7.4	7.3	7.3	7.3	7.2	7.2	7.2	7.2	
		Stiffness, G', (10 ³ N/mm)	2.3	2.4	2.5	2.6	2.7	2.7	2.8	2.9	3.0	
	150	Strength, (kN/m)	9.3	9.2	9.2	9.2	9.2	9.1	9.1	9.1	9.1	
		Stiffness, G', (10 ³ N/mm)	2.4	2.5	2.7	2.8	2.8	2.9	3.0	3.1	3.2	
	610/5	900	Strength, (kN/m)	3.5	3.4	3.3	3.3	3.2	3.1	3.1	3.0	3.0
			Stiffness, G', (10 ³ N/mm)	5.1	5.0	5.0	4.9	4.8	4.8	4.7	4.6	4.6
600		Strength, (kN/m)	4.4	4.4	4.3	4.2	4.2	4.1	4.1	4.0	4.0	
		Stiffness, G', (10 ³ N/mm)	5.6	5.6	5.5	5.5	5.4	5.4	5.3	5.3	5.3	
300		Strength, (kN/m)	7.4	7.3	7.2	7.1	7.1	7.0	6.9	6.9	6.9	
		Stiffness, G', (10 ³ N/mm)	6.9	6.9	6.9	6.9	7.0	7.0	7.0	7.0	7.0	
230		Strength, (kN/m)	8.9	8.8	8.7	8.7	8.6	8.5	8.5	8.5	8.4	
		Stiffness, G', (10 ³ N/mm)	7.5	7.6	7.6	7.7	7.7	7.7	7.7	7.8	7.8	
150		Strength, (kN/m)	12.0	11.9	11.9	11.8	11.8	11.7	11.7	11.6	11.6	
		Stiffness, G', (10 ³ N/mm)	8.7	8.8	8.9	9.0	9.0	9.1	9.2	9.3	9.3	
610/7		900	Strength, (kN/m)	5.2	5.0	4.8	4.7	4.6	4.5	4.4	4.3	4.2
			Stiffness, G', (10 ³ N/mm)	6.6	6.5	6.5	6.4	6.3	6.2	6.2	6.1	6.0
	600	Strength, (kN/m)	6.1	6.0	5.8	5.7	5.5	5.4	5.3	5.2	5.1	
		Stiffness, G', (10 ³ N/mm)	7.0	6.9	6.9	6.8	6.8	6.7	6.7	6.6	6.6	
	300	Strength, (kN/m)	9.0	8.9	8.7	8.6	8.5	8.3	8.2	8.1	8.1	
		Stiffness, G', (10 ³ N/mm)	7.9	8.0	8.0	8.0	8.0	8.0	8.0	8.0	7.9	
	230	Strength, (kN/m)	10.8	10.6	10.5	10.3	10.2	10.1	10.0	9.9	9.8	
		Stiffness, G', (10 ³ N/mm)	8.4	8.5	8.5	8.6	8.6	8.6	8.6	8.6	8.7	
	150	Strength, (kN/m)	14.0	13.9	13.7	13.6	13.5	13.4	13.3	13.2	13.1	
		Stiffness, G', (10 ³ N/mm)	9.3	9.4	9.5	9.6	9.7	9.8	9.8	9.9	10.0	

76 mm deck - 610 mm wide - 152 mm flute spacing

Thickness = 1.21 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)								
			3 000	3 150	3 300	3 450	3 600	3 750	3 900	4 050	4 200
610/3	900	Strength, (kN/m)	3.8	3.8	3.7	3.7	3.6	3.6	3.5	3.5	3.5
		Stiffness, G', (10 ³ N/mm)	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2
	600	Strength, (kN/m)	5.1	5.0	5.0	4.9	4.9	4.9	4.8	4.8	4.8
		Stiffness, G', (10 ³ N/mm)	3.4	3.4	3.5	3.5	3.6	3.6	3.6	3.7	3.7
	300	Strength, (kN/m)	8.2	8.2	8.1	8.1	8.0	8.0	8.0	7.9	7.9
		Stiffness, G', (10 ³ N/mm)	4.1	4.1	4.2	4.3	4.4	4.5	4.6	4.6	4.7
	230	Strength, (kN/m)	9.7	9.7	9.6	9.6	9.6	9.5	9.5	9.5	9.4
		Stiffness, G', (10 ³ N/mm)	4.3	4.4	4.5	4.7	4.8	4.9	4.9	5.0	5.1
	150	Strength, (kN/m)	12.2	12.2	12.1	12.1	12.1	12.1	12.1	12.0	12.0
		Stiffness, G', (10 ³ N/mm)	4.7	4.9	5.0	5.2	5.3	5.4	5.5	5.7	5.8
610/5	900	Strength, (kN/m)	4.4	4.3	4.2	4.2	4.1	4.0	4.0	3.9	3.9
		Stiffness, G', (10 ³ N/mm)	6.3	6.2	6.1	6.0	5.9	5.8	5.7	5.6	5.5
	600	Strength, (kN/m)	5.7	5.6	5.5	5.5	5.4	5.3	5.3	5.2	5.2
		Stiffness, G', (10 ³ N/mm)	7.1	7.1	7.0	6.9	6.8	6.7	6.6	6.6	6.5
	300	Strength, (kN/m)	9.5	9.5	9.4	9.3	9.2	9.2	9.1	9.0	9.0
		Stiffness, G', (10 ³ N/mm)	9.3	9.2	9.2	9.1	9.1	9.1	9.0	9.0	8.9
	230	Strength, (kN/m)	11.6	11.5	11.4	11.4	11.3	11.2	11.2	11.1	11.1
		Stiffness, G', (10 ³ N/mm)	10.3	10.3	10.3	10.3	10.3	10.3	10.2	10.2	10.2
	150	Strength, (kN/m)	15.8	15.7	15.6	15.6	15.5	15.5	15.4	15.4	15.3
		Stiffness, G', (10 ³ N/mm)	12.4	12.4	12.5	12.5	12.5	12.6	12.6	12.6	12.6
610/7	900	Strength, (kN/m)	6.4	6.2	6.0	5.9	5.8	5.6	5.5	5.4	5.3
		Stiffness, G', (10 ³ N/mm)	8.5	8.4	8.2	8.1	7.9	7.8	7.7	7.5	7.4
	600	Strength, (kN/m)	7.7	7.5	7.3	7.2	7.1	6.9	6.8	6.7	6.6
		Stiffness, G', (10 ³ N/mm)	9.2	9.0	8.9	8.8	8.7	8.5	8.4	8.3	8.2
	300	Strength, (kN/m)	11.6	11.4	11.2	11.1	10.9	10.8	10.7	10.6	10.5
		Stiffness, G', (10 ³ N/mm)	10.9	10.8	10.8	10.7	10.6	10.6	10.5	10.4	10.4
	230	Strength, (kN/m)	13.9	13.7	13.5	13.4	13.2	13.1	13.0	12.9	12.8
		Stiffness, G', (10 ³ N/mm)	11.8	11.8	11.7	11.7	11.6	11.6	11.6	11.5	11.5
	150	Strength, (kN/m)	18.2	18.0	17.9	17.8	17.6	17.5	17.4	17.3	17.2
		Stiffness, G', (10 ³ N/mm)	13.5	13.5	13.6	13.6	13.6	13.6	13.6	13.6	13.6

76 mm deck - 610 mm wide - 152 mm flute spacing

Thickness = 1.52

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)									
			3 300	3 450	3 600	3 750	3 900	4 050	4 200	4 350	4 500	
610/3	900	Strength, (kN/m)	4.6	4.5	4.5	4.4	4.4	4.3	4.3	4.3	4.2	
		Stiffness, G', (10 ³ N/mm)	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	
	600	Strength, (kN/m)	6.2	6.2	6.1	6.1	6.0	6.0	5.9	5.9	5.9	
		Stiffness, G', (10 ³ N/mm)	4.7	4.7	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
	300	Strength, (kN/m)	10.1	10.1	10.0	10.0	9.9	9.9	9.9	9.8	9.8	
		Stiffness, G', (10 ³ N/mm)	6.0	6.1	6.2	6.2	6.3	6.4	6.4	6.5	6.5	
	230	Strength, (kN/m)	12.0	11.9	11.9	11.8	11.8	11.8	11.7	11.7	11.7	
		Stiffness, G', (10 ³ N/mm)	6.5	6.7	6.8	6.9	7.0	7.1	7.2	7.2	7.3	
	150	Strength, (kN/m)	15.1	15.0	15.0	15.0	15.0	14.9	14.9	14.9	14.9	
		Stiffness, G', (10 ³ N/mm)	7.4	7.6	7.8	7.9	8.1	8.2	8.4	8.5	8.6	
	610/5	900	Strength, (kN/m)	5.3	5.2	5.1	5.0	4.9	4.9	4.8	4.8	4.7
			Stiffness, G', (10 ³ N/mm)	7.2	7.0	6.9	6.8	6.6	6.5	6.4	6.3	6.2
600		Strength, (kN/m)	6.9	6.8	6.7	6.6	6.6	6.5	6.4	6.4	6.3	
		Stiffness, G', (10 ³ N/mm)	8.2	8.1	8.0	7.9	7.8	7.7	7.6	7.5	7.4	
300		Strength, (kN/m)	11.7	11.6	11.5	11.4	11.3	11.3	11.2	11.1	11.1	
		Stiffness, G', (10 ³ N/mm)	11.0	11.0	10.9	10.8	10.7	10.7	10.6	10.6	10.5	
230		Strength, (kN/m)	14.2	14.1	14.1	14.0	13.9	13.9	13.8	13.7	13.7	
		Stiffness, G', (10 ³ N/mm)	12.5	12.5	12.4	12.4	12.3	12.3	12.2	12.2	12.2	
150		Strength, (kN/m)	19.5	19.4	19.3	19.3	19.2	19.1	19.1	19.0	19.0	
		Stiffness, G', (10 ³ N/mm)	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	
610/7		900	Strength, (kN/m)	7.5	7.3	7.1	7.0	6.8	6.7	6.6	6.5	6.4
			Stiffness, G', (10 ³ N/mm)	9.8	9.6	9.4	9.2	9.0	8.9	8.7	8.6	8.4
	600	Strength, (kN/m)	9.1	8.9	8.8	8.6	8.5	8.3	8.2	8.1	8.0	
		Stiffness, G', (10 ³ N/mm)	10.7	10.5	10.3	10.2	10.0	9.9	9.7	9.6	9.4	
	300	Strength, (kN/m)	14.0	13.8	13.6	13.5	13.3	13.2	13.1	12.9	12.8	
		Stiffness, G', (10 ³ N/mm)	13.1	13.0	12.9	12.8	12.6	12.5	12.4	12.3	12.2	
	230	Strength, (kN/m)	16.8	16.6	16.5	16.3	16.2	16.0	15.9	15.8	15.7	
		Stiffness, G', (10 ³ N/mm)	14.4	14.3	14.2	14.1	14.0	14.0	13.9	13.8	13.7	
	150	Strength, (kN/m)	22.3	22.1	21.9	21.8	21.7	21.6	21.4	21.3	21.2	
		Stiffness, G', (10 ³ N/mm)	17.0	16.9	16.9	16.9	16.8	16.8	16.8	16.7	16.7	

76 mm deck - 610 mm wide - 203 mm flute spacing

Thickness = 0.76 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)								
			2 400	2 550	2 700	2 850	3 000	3 150	3 300	3 450	3 600
610/4	900	Strength, (kN/m)	2.1	2.0	2.0	1.9	1.8	1.8	1.7	1.6	1.6
		Stiffness, G', (10 ³ N/mm)	2.9	2.9	2.8	2.8	2.8	2.7	2.7	2.6	2.6
	600	Strength, (kN/m)	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9
		Stiffness, G', (10 ³ N/mm)	2.9	2.9	2.9	2.8	2.8	2.8	2.7	2.7	2.7
	300	Strength, (kN/m)	3.2	3.1	3.0	3.0	2.9	2.8	2.8	2.7	2.7
		Stiffness, G', (10 ³ N/mm)	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.8	2.8
	230	Strength, (kN/m)	3.7	3.6	3.5	3.5	3.4	3.3	3.3	3.2	3.2
		Stiffness, G', (10 ³ N/mm)	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.9
	150	Strength, (kN/m)	4.8	4.7	4.7	4.6	4.5	4.4	4.4	4.3	4.3
		Stiffness, G', (10 ³ N/mm)	3.1	3.2	3.2	3.2	3.1	3.1	3.1	3.1	3.1
610/6	900	Strength, (kN/m)	3.7	3.5	3.4	3.2	3.1	3.0	2.9	2.8	2.7
		Stiffness, G', (10 ³ N/mm)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.6
	600	Strength, (kN/m)	4.0	3.8	3.6	3.5	3.4	3.2	3.1	3.0	2.9
		Stiffness, G', (10 ³ N/mm)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	300	Strength, (kN/m)	4.8	4.6	4.4	4.3	4.2	4.0	3.9	3.8	3.7
		Stiffness, G', (10 ³ N/mm)	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
	230	Strength, (kN/m)	5.3	5.1	4.9	4.8	4.7	4.5	4.4	4.3	4.2
		Stiffness, G', (10 ³ N/mm)	3.8	3.8	3.8	3.8	3.9	3.9	3.9	3.8	3.8
	150	Strength, (kN/m)	6.4	6.2	6.1	5.9	5.8	5.7	5.5	5.4	5.4
		Stiffness, G', (10 ³ N/mm)	3.8	3.9	3.9	3.9	4.0	4.0	4.0	4.0	4.0

76 mm deck - 610 mm wide - 203 mm flute spacing

Thickness = 0.91 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)								
			2 700	2 850	3 000	3 150	3 300	3 450	3 600	3 750	3 900
610/4	900	Strength, (kN/m)	2.4	2.3	2.3	2.2	2.1	2.1	2.0	2.0	1.9
		Stiffness, G', (10 ³ N/mm)	3.5	3.4	3.4	3.3	3.2	3.2	3.1	3.0	3.0
	600	Strength, (kN/m)	2.8	2.7	2.6	2.6	2.5	2.5	2.4	2.3	2.3
		Stiffness, G', (10 ³ N/mm)	3.6	3.5	3.4	3.4	3.3	3.2	3.2	3.1	3.0
	300	Strength, (kN/m)	4.0	3.9	3.8	3.7	3.7	3.6	3.6	3.5	3.5
		Stiffness, G', (10 ³ N/mm)	3.7	3.6	3.6	3.5	3.5	3.4	3.4	3.3	3.3
	230	Strength, (kN/m)	4.7	4.6	4.5	4.4	4.4	4.3	4.3	4.2	4.2
		Stiffness, G', (10 ³ N/mm)	3.8	3.7	3.7	3.6	3.6	3.5	3.5	3.4	3.4
	150	Strength, (kN/m)	6.3	6.2	6.1	6.0	6.0	5.9	5.8	5.8	5.7
		Stiffness, G', (10 ³ N/mm)	4.0	3.9	3.9	3.9	3.8	3.8	3.7	3.7	3.7
610/6	900	Strength, (kN/m)	4.1	3.9	3.8	3.6	3.5	3.4	3.3	3.2	3.1
		Stiffness, G', (10 ³ N/mm)	4.8	4.8	4.7	4.7	4.6	4.5	4.5	4.4	4.4
	600	Strength, (kN/m)	4.5	4.3	4.2	4.0	3.9	3.8	3.7	3.6	3.5
		Stiffness, G', (10 ³ N/mm)	4.8	4.8	4.7	4.7	4.7	4.6	4.5	4.5	4.4
	300	Strength, (kN/m)	5.7	5.5	5.3	5.2	5.1	4.9	4.8	4.7	4.6
		Stiffness, G', (10 ³ N/mm)	4.9	4.9	4.9	4.8	4.8	4.7	4.7	4.6	4.6
	230	Strength, (kN/m)	6.4	6.2	6.0	5.9	5.8	5.6	5.5	5.4	5.3
		Stiffness, G', (10 ³ N/mm)	5.0	5.0	4.9	4.9	4.9	4.8	4.8	4.7	4.7
	150	Strength, (kN/m)	8.0	7.8	7.7	7.5	7.4	7.3	7.2	7.1	7.0
		Stiffness, G', (10 ³ N/mm)	5.1	5.1	5.1	5.0	5.0	5.0	4.9	4.9	4.9

76 mm deck - 610 mm wide - 203 mm flute spacing

Thickness = 1.21 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)								
			3 000	3 150	3 300	3 450	3 600	3 750	3 900	4 050	4 200
610/4	900	Strength, (kN/m)	3.2	3.1	3.1	3.0	2.9	2.9	2.8	2.7	2.7
		Stiffness, G', (10 ³ N/mm)	4.4	4.3	4.2	4.0	3.9	3.8	3.7	3.6	3.5
	600	Strength, (kN/m)	3.9	3.8	3.7	3.7	3.6	3.5	3.5	3.4	3.4
		Stiffness, G', (10 ³ N/mm)	4.5	4.4	4.3	4.1	4.0	3.9	3.8	3.7	3.6
	300	Strength, (kN/m)	6.0	5.9	5.8	5.7	5.7	5.6	5.6	5.5	5.5
		Stiffness, G', (10 ³ N/mm)	4.7	4.6	4.5	4.4	4.3	4.2	4.1	4.0	4.0
	230	Strength, (kN/m)	7.2	7.2	7.1	7.0	6.9	6.9	6.8	6.8	6.7
		Stiffness, G', (10 ³ N/mm)	4.9	4.8	4.7	4.6	4.5	4.4	4.3	4.2	4.1
	150	Strength, (kN/m)	9.7	9.6	9.6	9.5	9.4	9.4	9.3	9.3	9.2
		Stiffness, G', (10 ³ N/mm)	5.2	5.1	5.0	4.9	4.8	4.8	4.7	4.6	4.5
610/6	900	Strength, (kN/m)	5.2	5.0	4.9	4.7	4.6	4.5	4.3	4.2	4.1
		Stiffness, G', (10 ³ N/mm)	6.5	6.4	6.2	6.1	6.0	5.8	5.7	5.6	5.5
	600	Strength, (kN/m)	5.9	5.7	5.6	5.4	5.3	5.1	5.0	4.9	4.8
		Stiffness, G', (10 ³ N/mm)	6.6	6.4	6.3	6.2	6.0	5.9	5.8	5.7	5.6
	300	Strength, (kN/m)	8.0	7.8	7.6	7.5	7.3	7.2	7.1	7.0	6.9
		Stiffness, G', (10 ³ N/mm)	6.7	6.6	6.5	6.4	6.3	6.1	6.0	5.9	5.8
	230	Strength, (kN/m)	9.2	9.1	8.9	8.7	8.6	8.5	8.4	8.2	8.1
		Stiffness, G', (10 ³ N/mm)	6.8	6.7	6.6	6.5	6.4	6.3	6.2	6.1	5.9
	150	Strength, (kN/m)	12.0	11.8	11.7	11.5	11.4	11.3	11.1	11.0	10.9
		Stiffness, G', (10 ³ N/mm)	7.1	7.0	6.9	6.8	6.7	6.6	6.5	6.4	6.3

76 mm deck - 610 mm wide - 203 mm flute spacing

Thickness = 1.52 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: Button Punch

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)									
			3 300	3 450	3 600	3 750	3 900	4 050	4 200	4 350	4 500	
610/4	900	Strength, (kN/m)	4.1	4.0	3.9	3.9	3.8	3.7	3.7	3.6	3.6	
		Stiffness, G', (10 ³ N/mm)	4.9	4.8	4.6	4.5	4.4	4.2	4.1	4.0	3.9	
	600	Strength, (kN/m)	5.2	5.1	5.0	4.9	4.9	4.8	4.8	4.7	4.7	
		Stiffness, G', (10 ³ N/mm)	5.0	4.9	4.7	4.6	4.5	4.4	4.2	4.1	4.0	
	300	Strength, (kN/m)	8.4	8.3	8.2	8.2	8.1	8.0	8.0	7.9	7.9	
		Stiffness, G', (10 ³ N/mm)	5.4	5.2	5.1	5.0	4.8	4.7	4.6	4.5	4.4	
	230	Strength, (kN/m)	10.2	10.1	10.0	10.0	9.9	9.8	9.8	9.7	9.7	
		Stiffness, G', (10 ³ N/mm)	5.6	5.4	5.3	5.2	5.1	4.9	4.8	4.7	4.6	
	150	Strength, (kN/m)	13.8	13.7	13.6	13.6	13.5	13.5	13.4	13.4	13.3	
		Stiffness, G', (10 ³ N/mm)	6.0	5.9	5.8	5.6	5.5	5.4	5.3	5.2	5.1	
	610/6	900	Strength, (kN/m)	6.3	6.2	6.0	5.8	5.7	5.6	5.4	5.3	5.2
			Stiffness, G', (10 ³ N/mm)	7.6	7.4	7.2	7.0	6.8	6.7	6.5	6.3	6.2
600		Strength, (kN/m)	7.4	7.2	7.1	6.9	6.8	6.6	6.5	6.4	6.3	
		Stiffness, G', (10 ³ N/mm)	7.7	7.5	7.3	7.1	6.9	6.8	6.6	6.5	6.3	
300		Strength, (kN/m)	10.7	10.5	10.3	10.1	10.0	9.9	9.8	9.6	9.5	
		Stiffness, G', (10 ³ N/mm)	7.9	7.8	7.6	7.4	7.2	7.1	6.9	6.8	6.6	
230		Strength, (kN/m)	12.6	12.4	12.3	12.1	12.0	11.8	11.7	11.6	11.5	
		Stiffness, G', (10 ³ N/mm)	8.1	7.9	7.7	7.6	7.4	7.3	7.1	7.0	6.8	
150		Strength, (kN/m)	16.5	16.3	16.2	16.0	15.9	15.8	15.7	15.6	15.5	
		Stiffness, G', (10 ³ N/mm)	8.5	8.3	8.1	8.0	7.8	7.7	7.5	7.4	7.3	

76 mm deck - 610 mm wide - 203 mm flute spacing

Thickness = 0.76 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)								
			2 400	2 550	2 700	2 850	3 000	3 150	3 300	3 450	3 600
610/4	900	Strength, (kN/m)	2.8	2.7	2.7	2.6	2.6	2.5	2.5	2.4	2.4
		Stiffness, G', (10 ³ N/mm)	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
	600	Strength, (kN/m)	3.6	3.5	3.5	3.4	3.4	3.3	3.3	3.3	3.2
		Stiffness, G', (10 ³ N/mm)	3.4	3.4	3.5	3.5	3.5	3.6	3.6	3.6	3.6
	300	Strength, (kN/m)	5.9	5.8	5.8	5.7	5.7	5.6	5.6	5.5	5.5
		Stiffness, G', (10 ³ N/mm)	3.9	4.0	4.1	4.2	4.2	4.3	4.4	4.4	4.5
	230	Strength, (kN/m)	7.1	7.0	6.9	6.9	6.8	6.8	6.8	6.7	6.7
		Stiffness, G', (10 ³ N/mm)	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9
	150	Strength, (kN/m)	9.3	9.2	9.2	9.1	9.1	9.1	9.0	9.0	9.0
		Stiffness, G', (10 ³ N/mm)	4.5	4.6	4.8	4.9	5.0	5.1	5.3	5.4	5.5
610/6	900	Strength, (kN/m)	4.4	4.2	4.1	4.0	3.8	3.7	3.6	3.6	3.5
		Stiffness, G', (10 ³ N/mm)	3.8	3.9	3.9	4.0	4.0	4.0	4.0	4.1	4.1
	600	Strength, (kN/m)	5.2	5.0	4.9	4.8	4.7	4.5	4.5	4.4	4.3
		Stiffness, G', (10 ³ N/mm)	4.0	4.0	4.1	4.2	4.2	4.2	4.3	4.3	4.3
	300	Strength, (kN/m)	7.6	7.5	7.3	7.2	7.1	7.0	6.9	6.8	6.7
		Stiffness, G', (10 ³ N/mm)	4.3	4.4	4.5	4.6	4.7	4.8	4.8	4.9	5.0
	230	Strength, (kN/m)	8.9	8.7	8.6	8.5	8.3	8.2	8.1	8.1	8.0
		Stiffness, G', (10 ³ N/mm)	4.4	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.2
	150	Strength, (kN/m)	11.2	11.1	11.0	10.9	10.8	10.7	10.6	10.6	10.5
		Stiffness, G', (10 ³ N/mm)	4.7	4.8	5.0	5.1	5.3	5.4	5.5	5.6	5.7

76 mm deck - 610 mm wide - 203 mm flute spacing

Thickness = 0.91 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)								
			2 700	2 850	3 000	3 150	3 300	3 450	3 600	3 750	3 900
610/4	900	Strength, (kN/m)	3.2	3.1	3.1	3.0	3.0	2.9	2.9	2.8	2.8
		Stiffness, G', (10 ³ N/mm)	4.1	4.0	4.0	4.0	4.0	4.0	3.9	3.9	3.9
	600	Strength, (kN/m)	4.2	4.1	4.0	4.0	3.9	3.9	3.9	3.8	3.8
		Stiffness, G', (10 ³ N/mm)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.4
	300	Strength, (kN/m)	6.9	6.9	6.8	6.7	6.7	6.6	6.6	6.6	6.5
		Stiffness, G', (10 ³ N/mm)	5.4	5.4	5.5	5.5	5.6	5.6	5.7	5.7	5.8
	230	Strength, (kN/m)	8.3	8.2	8.2	8.1	8.1	8.1	8.0	8.0	7.9
		Stiffness, G', (10 ³ N/mm)	5.8	5.9	6.0	6.0	6.1	6.2	6.3	6.3	6.4
	150	Strength, (kN/m)	11.0	10.9	10.9	10.9	10.8	10.8	10.8	10.7	10.7
		Stiffness, G', (10 ³ N/mm)	6.5	6.6	6.8	6.9	7.0	7.1	7.2	7.3	7.4
610/6	900	Strength, (kN/m)	4.9	4.7	4.6	4.5	4.4	4.2	4.2	4.1	4.0
		Stiffness, G', (10 ³ N/mm)	5.1	5.2	5.2	5.1	5.1	5.1	5.1	5.1	5.0
	600	Strength, (kN/m)	5.9	5.7	5.6	5.4	5.3	5.2	5.1	5.0	5.0
		Stiffness, G', (10 ³ N/mm)	5.4	5.4	5.5	5.5	5.5	5.5	5.5	5.5	5.5
	300	Strength, (kN/m)	8.8	8.6	8.5	8.4	8.2	8.1	8.0	7.9	7.9
		Stiffness, G', (10 ³ N/mm)	6.0	6.1	6.2	6.3	6.3	6.4	6.4	6.5	6.5
	230	Strength, (kN/m)	10.3	10.1	10.0	9.9	9.8	9.7	9.6	9.5	9.4
		Stiffness, G', (10 ³ N/mm)	6.3	6.4	6.5	6.6	6.7	6.8	6.9	6.9	7.0
	150	Strength, (kN/m)	13.2	13.0	12.9	12.8	12.7	12.7	12.6	12.5	12.4
		Stiffness, G', (10 ³ N/mm)	6.8	7.0	7.2	7.3	7.4	7.5	7.7	7.8	7.9

76 mm deck - 610 mm wide - 203 mm flute spacing

Thickness = 1.21 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)								
			3 000	3 150	3 300	3 450	3 600	3 750	3 900	4 050	4 200
610/4	900	Strength, (kN/m)	4.1	4.0	3.9	3.9	3.8	3.8	3.7	3.7	3.6
		Stiffness, G' , (10^3 N/mm)	5.4	5.3	5.3	5.2	5.1	5.1	5.0	5.0	4.9
	600	Strength, (kN/m)	5.4	5.3	5.2	5.2	5.1	5.1	5.0	5.0	4.9
		Stiffness, G' , (10^3 N/mm)	6.1	6.1	6.0	6.0	5.9	5.9	5.8	5.8	5.8
	300	Strength, (kN/m)	9.0	8.9	8.9	8.8	8.8	8.7	8.7	8.6	8.6
		Stiffness, G' , (10^3 N/mm)	7.8	7.8	7.9	7.9	7.9	7.9	7.9	7.9	7.9
	230	Strength, (kN/m)	10.9	10.8	10.8	10.7	10.6	10.6	10.6	10.5	10.5
		Stiffness, G' , (10^3 N/mm)	8.6	8.7	8.8	8.8	8.8	8.9	8.9	8.9	9.0
	150	Strength, (kN/m)	14.5	14.4	14.4	14.3	14.3	14.2	14.2	14.2	14.1
		Stiffness, G' , (10^3 N/mm)	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	10.9
610/6	900	Strength, (kN/m)	6.1	5.9	5.8	5.6	5.5	5.4	5.3	5.2	5.1
		Stiffness, G' , (10^3 N/mm)	7.2	7.2	7.1	7.0	6.9	6.8	6.7	6.7	6.6
	600	Strength, (kN/m)	7.4	7.2	7.0	6.9	6.8	6.7	6.6	6.5	6.4
		Stiffness, G' , (10^3 N/mm)	7.8	7.7	7.6	7.6	7.5	7.5	7.4	7.4	7.3
	300	Strength, (kN/m)	11.3	11.1	10.9	10.8	10.7	10.6	10.4	10.4	10.3
		Stiffness, G' , (10^3 N/mm)	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
	230	Strength, (kN/m)	13.2	13.1	12.9	12.8	12.7	12.6	12.5	12.4	12.3
		Stiffness, G' , (10^3 N/mm)	9.7	9.8	9.8	9.9	9.9	9.9	10.0	10.0	10.0
	150	Strength, (kN/m)	17.2	17.0	16.9	16.8	16.7	16.6	16.5	16.4	16.3
		Stiffness, G' , (10^3 N/mm)	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.6	11.7

76 mm deck - 610 mm wide - 203 mm flute spacing

Thickness = 1.52 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design – FACTORED RESISTANCE

Side-lap connection: #10 Screws

$\phi = 0.50$

SDI METHOD – METRIC

Support Connection Pattern	Side Lap Spacing (mm)		Span (mm)								
			3 300	3 450	3 600	3 750	3 900	4 050	4 200	4 350	4 500
610/4	900	Strength, (kN/m)	4.9	4.8	4.8	4.7	4.6	4.6	4.5	4.5	4.4
		Stiffness, G', (10 ³ N/mm)	6.3	6.2	6.1	6.0	6.0	5.9	5.8	5.7	5.7
	600	Strength, (kN/m)	6.5	6.4	6.4	6.3	6.3	6.2	6.2	6.1	6.1
		Stiffness, G', (10 ³ N/mm)	7.3	7.2	7.1	7.1	7.0	6.9	6.9	6.8	6.8
	300	Strength, (kN/m)	11.0	11.0	10.9	10.8	10.8	10.7	10.7	10.6	10.6
		Stiffness, G', (10 ³ N/mm)	9.8	9.8	9.8	9.7	9.7	9.7	9.7	9.7	9.6
	230	Strength, (kN/m)	13.4	13.3	13.3	13.2	13.1	13.1	13.1	13.0	13.0
		Stiffness, G', (10 ³ N/mm)	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
	150	Strength, (kN/m)	17.9	17.8	17.8	17.7	17.7	17.6	17.6	17.6	17.5
		Stiffness, G', (10 ³ N/mm)	13.5	13.6	13.6	13.7	13.8	13.8	13.9	13.9	14.0
610/6	900	Strength, (kN/m)	7.1	7.0	6.8	6.7	6.5	6.4	6.3	6.2	6.1
		Stiffness, G', (10 ³ N/mm)	8.7	8.6	8.4	8.3	8.2	8.1	7.9	7.8	7.7
	600	Strength, (kN/m)	8.7	8.6	8.4	8.3	8.2	8.0	7.9	7.8	7.7
		Stiffness, G', (10 ³ N/mm)	9.5	9.4	9.3	9.2	9.1	9.0	8.9	8.8	8.7
	300	Strength, (kN/m)	13.6	13.4	13.3	13.1	13.0	12.9	12.8	12.7	12.6
		Stiffness, G', (10 ³ N/mm)	11.6	11.5	11.5	11.4	11.4	11.3	11.3	11.2	11.2
	230	Strength, (kN/m)	16.1	15.9	15.8	15.6	15.5	15.4	15.3	15.2	15.1
		Stiffness, G', (10 ³ N/mm)	12.7	12.6	12.6	12.6	12.6	12.6	12.6	12.5	12.5
	150	Strength, (kN/m)	21.0	20.9	20.8	20.6	20.5	20.4	20.3	20.3	20.2
		Stiffness, G', (10 ³ N/mm)	14.7	14.8	14.8	14.9	14.9	15.0	15.0	15.0	15.0

38 mm deck - 914 mm wide - 152 mm flute spacing
Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24
Side-lap connection: Button Punch @ 600 mm o.c.
Concrete resistance: 20 MPa Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
65 mm thick concrete over deck
Concrete density: 2300 kg/m³ Minimum

SDI METHOD – METRIC

Thickness = 0.76 mm										
Support Connection Pattern		Span (mm)								
		900	1 050	1 200	1 350	1 500	1 650	1 800	1 950	2 100
914/4	Strength, (kN/m)	41.3	40.6	40.0	39.6	39.3	39.0	38.8	38.6	38.4
	Stiffness, G', (10 ³ N/mm)	431	429	428	427	426	426	425	424	424
914/7	Strength, (kN/m)	43.5	42.5	41.7	41.1	40.6	40.2	39.9	39.6	39.4
	Stiffness, G', (10 ³ N/mm)	435	433	432	431	430	429	428	427	427
914/9	Strength, (kN/m)	48.5	46.7	45.4	44.4	43.6	42.9	42.4	41.9	41.5
	Stiffness, G', (10 ³ N/mm)	439	438	436	435	434	433	432	431	430

Thickness = 0.91 mm										
Support Connection Pattern		Span (mm)								
		1 200	1 350	1 500	1 650	1 800	1 950	2 100	2 250	2 400
914/4	Strength, (kN/m)	41.0	40.5	40.1	39.8	39.5	39.3	39.1	39.0	38.8
	Stiffness, G', (10 ³ N/mm)	430	428	428	427	426	425	425	424	424
914/7	Strength, (kN/m)	43.0	42.3	41.7	41.3	40.9	40.5	40.3	40.0	39.8
	Stiffness, G', (10 ³ N/mm)	434	433	432	431	430	429	428	428	427
914/9	Strength, (kN/m)	47.4	46.2	45.3	44.5	43.8	43.3	42.8	42.4	42.0
	Stiffness, G', (10 ³ N/mm)	439	438	436	435	434	433	432	432	431

Thickness = 1.21 mm										
Support Connection Pattern		Span (mm)								
		1 500	1 650	1 800	1 950	2 100	2 250	2 400	2 550	2 700
914/4	Strength, (kN/m)	41.9	41.5	41.2	40.9	40.7	40.5	40.3	40.1	40.0
	Stiffness, G', (10 ³ N/mm)	430	429	428	427	426	426	425	425	425
914/7	Strength, (kN/m)	44.0	43.4	42.9	42.5	42.2	41.9	41.6	41.3	41.1
	Stiffness, G', (10 ³ N/mm)	435	433	432	431	431	430	429	428	428
914/9	Strength, (kN/m)	48.7	47.7	46.9	46.1	45.5	45.0	44.5	44.1	43.7
	Stiffness, G', (10 ³ N/mm)	441	439	438	437	436	435	434	433	432

Thickness = 1.52 mm										
Support Connection Pattern		Span (mm)								
		1 800	1 950	2 100	2 250	2 400	2 550	2 700	2 850	3 000
914/4	Strength, (kN/m)	43.0	42.7	42.4	42.1	41.9	41.7	41.6	41.4	41.3
	Stiffness, G', (10 ³ N/mm)	430	429	428	427	427	426	426	425	425
914/7	Strength, (kN/m)	45.1	44.6	44.2	43.9	43.5	43.2	43.0	42.8	42.6
	Stiffness, G', (10 ³ N/mm)	435	434	433	432	431	430	430	429	428
914/9	Strength, (kN/m)	50.0	49.1	48.4	47.7	47.2	46.7	46.2	45.8	45.5
	Stiffness, G', (10 ³ N/mm)	441	440	439	438	437	436	435	434	433

38 mm deck - 914 mm wide - 152 mm flute spacing
Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24
Side-lap connection: #10 Screws @ 600 mm o.c.
Concrete resistance: 20 MPa Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
65 mm thick concrete over deck
Concrete density: 2300 kg/m³ Minimum

SDI METHOD – METRIC

Thickness = 0.76 mm										
Support Connection Pattern		Span (mm)								
		900	1 050	1 200	1 350	1 500	1 650	1 800	1 950	2 100
914/4	Strength, (kN/m)	41.8	41.3	40.8	40.5	40.3	40.0	39.9	39.7	39.6
	Stiffness, G', (10 ³ N/mm)	431	430	429	429	428	427	427	426	426
914/7	Strength, (kN/m)	44.0	43.2	42.5	42.0	41.6	41.2	41.0	40.7	40.5
	Stiffness, G', (10 ³ N/mm)	435	434	433	432	431	430	430	429	429
914/9	Strength, (kN/m)	49.0	47.4	46.2	45.3	44.6	44.0	43.5	43.0	42.7
	Stiffness, G', (10 ³ N/mm)	440	438	437	436	435	434	433	433	432

Thickness = 0.91 mm										
Support Connection Pattern		Span (mm)								
		1 200	1 350	1 500	1 650	1 800	1 950	2 100	2 250	2 400
914/4	Strength, (kN/m)	41.9	41.5	41.2	40.9	40.7	40.5	40.4	40.3	40.1
	Stiffness, G', (10 ³ N/mm)	431	430	429	429	428	428	427	427	427
914/7	Strength, (kN/m)	43.9	43.3	42.8	42.4	42.0	41.8	41.5	41.3	41.1
	Stiffness, G', (10 ³ N/mm)	435	434	433	432	431	431	430	430	429
914/9	Strength, (kN/m)	48.3	47.2	46.3	45.6	45.0	44.5	44.1	43.7	43.4
	Stiffness, G', (10 ³ N/mm)	440	439	437	436	436	435	434	433	433

Thickness = 1.21 mm										
Support Connection Pattern		Span (mm)								
		1 500	1 650	1 800	1 950	2 100	2 250	2 400	2 550	2 700
914/4	Strength, (kN/m)	43.0	42.7	42.4	42.2	42.0	41.8	41.6	41.5	41.4
	Stiffness, G', (10 ³ N/mm)	432	431	430	430	429	429	429	428	428
914/7	Strength, (kN/m)	45.1	44.6	44.2	43.8	43.5	43.2	43.0	42.7	42.6
	Stiffness, G', (10 ³ N/mm)	437	435	435	434	433	432	432	431	431
914/9	Strength, (kN/m)	49.8	48.9	48.1	47.4	46.8	46.3	45.9	45.5	45.2
	Stiffness, G', (10 ³ N/mm)	442	441	440	439	438	437	436	436	435

Thickness = 1.52 mm										
Support Connection Pattern		Span (mm)								
		1 800	1 950	2 100	2 250	2 400	2 550	2 700	2 850	3 000
914/4	Strength, (kN/m)	44.1	43.8	43.5	43.3	43.1	43.0	42.8	42.7	42.6
	Stiffness, G', (10 ³ N/mm)	433	432	431	431	430	430	430	429	429
914/7	Strength, (kN/m)	46.2	45.8	45.4	45.0	44.8	44.5	44.3	44.1	43.9
	Stiffness, G', (10 ³ N/mm)	437	436	436	435	434	434	433	433	432
914/9	Strength, (kN/m)	51.1	50.2	49.5	48.9	48.4	47.9	47.5	47.1	46.8
	Stiffness, G', (10 ³ N/mm)	443	442	441	440	439	439	438	437	437

76 mm deck - 610 mm wide - 152 mm flute spacing
Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24
Side-lap connection: Button Punch @ 600 mm o.c.
Concrete resistance: 20 MPa Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
65 mm thick concrete over deck
Concrete density: 2300 kg/m³ Minimum

SDI METHOD – METRIC

Thickness = 0.76 mm										
Support Connection Pattern		Span (mm)								
		2 400	2 550	2 700	2 850	3 000	3 150	3 300	3 450	3 600
610/3	Strength, (kN/m)	37.9	37.8	37.8	37.7	37.6	37.5	37.5	37.4	37.4
	Stiffness, G', (10 ³ N/mm)	420	420	419	419	419	419	419	419	419
610/5	Strength, (kN/m)	38.4	38.3	38.2	38.1	38.0	37.9	37.8	37.8	37.7
	Stiffness, G', (10 ³ N/mm)	421	421	421	421	420	420	420	420	420
610/7	Strength, (kN/m)	40.3	40.0	39.8	39.6	39.5	39.3	39.2	39.1	38.9
	Stiffness, G', (10 ³ N/mm)	424	424	423	423	423	422	422	422	422

Thickness = 0.91 mm										
Support Connection Pattern		Span (mm)								
		2 700	2 850	3 000	3 150	3 300	3 450	3 600	3 750	3 900
610/3	Strength, (kN/m)	38.4	38.3	38.2	38.1	38.0	38.0	37.9	37.9	37.8
	Stiffness, G', (10 ³ N/mm)	420	420	420	419	419	419	419	419	419
610/5	Strength, (kN/m)	38.9	38.7	38.6	38.5	38.4	38.4	38.3	38.2	38.2
	Stiffness, G', (10 ³ N/mm)	421	421	421	421	421	420	420	420	420
610/7	Strength, (kN/m)	40.8	40.6	40.4	40.2	40.1	39.9	39.8	39.7	39.5
	Stiffness, G', (10 ³ N/mm)	424	424	423	423	423	423	422	422	422

Thickness = 1.21 mm										
Support Connection Pattern		Span (mm)								
		3 000	3 150	3 300	3 450	3 600	3 750	3 900	4 050	4 200
610/3	Strength, (kN/m)	39.5	39.4	39.3	39.2	39.2	39.1	39.0	39.0	38.9
	Stiffness, G', (10 ³ N/mm)	420	420	420	420	420	419	419	419	419
610/5	Strength, (kN/m)	40.1	39.9	39.8	39.7	39.6	39.6	39.5	39.4	39.3
	Stiffness, G', (10 ³ N/mm)	422	422	421	421	421	421	421	421	420
610/7	Strength, (kN/m)	42.4	42.2	42.0	41.8	41.6	41.4	41.3	41.1	41.0
	Stiffness, G', (10 ³ N/mm)	425	424	424	424	424	423	423	423	423

Thickness = 1.52 mm										
Support Connection Pattern		Span (mm)								
		3 300	3 450	3 600	3 750	3 900	4 050	4 200	4 350	4 500
610/3	Strength, (kN/m)	40.7	40.7	40.6	40.5	40.4	40.4	40.3	40.3	40.2
	Stiffness, G', (10 ³ N/mm)	420	420	420	420	420	420	419	419	419
610/5	Strength, (kN/m)	41.4	41.3	41.2	41.1	41.0	40.9	40.8	40.8	40.7
	Stiffness, G', (10 ³ N/mm)	422	422	422	421	421	421	421	421	421
610/7	Strength, (kN/m)	44.0	43.8	43.6	43.4	43.2	43.1	42.9	42.8	42.6
	Stiffness, G', (10 ³ N/mm)	425	425	425	424	424	424	424	433	433

76 mm deck - 610 mm wide - 203 mm flute spacing
Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24
Side-lap connection: #10 Screws @ 600 mm o.c.
Concrete resistance: 20 MPa Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
65 mm thick concrete over deck
Concrete density: 2300 kg/m³ Minimum

SDI METHOD – METRIC

Thickness = 0.76 mm										
Support Connection Pattern		Span (mm)								
		2 400	2 550	2 700	2 850	3 000	3 150	3 300	3 450	3 600
610/3	Strength, (kN/m)	39.2	39.1	39.0	39.0	38.9	38.9	38.8	38.8	38.7
	Stiffness, G', (10 ³ N/mm)	421	421	421	421	421	421	421	421	421
610/5	Strength, (kN/m)	39.6	39.5	39.4	39.4	39.3	39.2	39.2	39.1	39.1
	Stiffness, G', (10 ³ N/mm)	423	423	422	422	422	422	422	422	422
610/7	Strength, (kN/m)	41.5	41.3	41.1	40.9	40.8	40.6	40.5	40.4	40.3
	Stiffness, G', (10 ³ N/mm)	425	425	425	424	424	424	424	424	423

Thickness = 0.91 mm										
Support Connection Pattern		Span (mm)								
		2 700	2 850	3 000	3 150	3 300	3 450	3 600	3 750	3 900
610/3	Strength, (kN/m)	39.7	39.6	39.6	39.5	39.5	39.4	39.4	39.3	39.3
	Stiffness, G', (10 ³ N/mm)	422	422	422	421	421	421	421	421	421
610/5	Strength, (kN/m)	40.2	40.1	40.0	40.0	39.9	39.8	39.8	39.7	39.7
	Stiffness, G', (10 ³ N/mm)	423	423	423	423	423	422	422	422	422
610/7	Strength, (kN/m)	42.2	42.0	41.8	41.7	41.5	41.4	41.2	41.1	41.0
	Stiffness, G', (10 ³ N/mm)	426	425	425	425	425	424	424	424	424

Thickness = 1.21 mm										
Support Connection Pattern		Span (mm)								
		3 000	3 150	3 300	3 450	3 600	3 750	3 900	4 050	4 200
610/3	Strength, (kN/m)	40.9	40.9	40.8	40.7	40.7	40.6	40.6	40.5	40.5
	Stiffness, G', (10 ³ N/mm)	423	422	422	422	422	422	422	422	422
610/5	Strength, (kN/m)	41.5	41.4	41.3	41.2	41.2	41.1	41.0	41.0	40.9
	Stiffness, G', (10 ³ N/mm)	424	424	424	424	423	423	423	423	423
610/7	Strength, (kN/m)	43.9	43.6	43.5	43.3	43.1	43.0	42.8	42.7	42.6
	Stiffness, G', (10 ³ N/mm)	427	427	426	426	426	426	425	425	425

Thickness = 1.52 mm										
Support Connection Pattern		Span (mm)								
		3 300	3 450	3 600	3 750	3 900	4 050	4 200	4 350	4 500
610/3	Strength, (kN/m)	42.1	42.0	41.9	41.9	41.8	41.8	41.7	41.7	41.6
	Stiffness, G', (10 ³ N/mm)	423	423	423	423	423	423	423	423	423
610/5	Strength, (kN/m)	42.7	42.6	42.5	42.5	42.4	42.3	42.2	42.2	42.1
	Stiffness, G', (10 ³ N/mm)	425	425	424	424	424	424	424	424	424
610/7	Strength, (kN/m)	45.4	45.2	45.0	44.8	44.6	44.4	44.3	44.2	44.0
	Stiffness, G', (10 ³ N/mm)	428	428	427	427	427	427	426	426	426

76 mm deck - 610 mm wide - 203 mm flute spacing
Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24
Side-lap connection: Button Punch @ 600 mm o.c.
Concrete resistance: 20 MPa Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
65 mm thick concrete over deck
Concrete density: 2300 kg/m³ Minimum

SDI METHOD – METRIC

Thickness = 0.76 mm										
Support Connection Pattern		Span (mm)								
		2 400	2 550	2 700	2 850	3 000	3 150	3 300	3 450	3 600
610/4	Strength, (kN/m)	38.2	38.0	37.9	37.9	37.8	37.7	37.6	37.6	37.5
	Stiffness, G', (10 ³ N/mm)	421	421	420	420	420	420	420	420	419
610/6	Strength, (kN/m)	40.0	39.8	39.6	39.4	39.3	39.1	39.0	38.9	38.8
	Stiffness, G', (10 ³ N/mm)	424	423	423	423	422	422	422	422	422

Thickness = 0.91 mm										
Support Connection Pattern		Span (mm)								
		2 700	2 850	3 000	3 150	3 300	3 450	3 600	3 750	3 900
610/4	Strength, (kN/m)	38.6	38.5	38.4	38.3	38.2	38.2	38.1	38.0	38.0
	Stiffness, G', (10 ³ N/mm)	421	421	420	420	420	420	420	420	420
610/6	Strength, (kN/m)	40.6	40.4	40.2	40.0	39.8	39.7	39.6	39.5	39.4
	Stiffness, G', (10 ³ N/mm)	424	423	423	423	423	422	422	422	422

Thickness = 0.121 mm										
Support Connection Pattern		Span (mm)								
		3 000	3 150	3 300	3 450	3 600	3 750	3 900	4 050	4 200
610/4	Strength, (kN/m)	39.7	39.6	39.5	39.4	39.4	39.3	39.2	39.2	39.1
	Stiffness, G', (10 ³ N/mm)	421	421	421	421	421	420	420	420	420
610/6	Strength, (kN/m)	42.1	41.9	41.7	41.5	41.3	41.2	41.0	40.9	40.8
	Stiffness, G', (10 ³ N/mm)	424	424	424	424	423	423	423	423	422

Thickness = 0.152 mm										
Support Connection Pattern		Span (mm)								
		3 300	3 450	3 600	3 750	3 900	4 050	4 200	4 350	4 500
610/4	Strength, (kN/m)	41.0	40.9	40.8	40.8	40.7	40.6	40.5	40.5	40.4
	Stiffness, G', (10 ³ N/mm)	422	421	421	421	421	421	420	420	420
610/6	Strength, (kN/m)	43.7	43.5	43.3	43.1	42.9	42.8	42.6	42.5	42.4
	Stiffness, G', (10 ³ N/mm)	425	425	424	424	424	423	423	423	423

76 mm deck - 610 mm wide - 203 mm flute spacing
Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24
Side-lap connection: #10 Screws @ 600 mm o.c.
Concrete resistance: 20 MPa Minimum

Limit States Design – FACTORED RESISTANCE
 $\phi = 0.50$
65 mm thick concrete over deck
Concrete density: 2300 kg/m³ Minimum

SDI METHOD – METRIC

Thickness = 0.76 mm										
Support Connection Pattern		Span (mm)								
		2 400	2 550	2 700	2 850	3 000	3 150	3 300	3 450	3 600
610/4	Strength, (kN/m)	39.4	39.3	39.2	39.1	39.1	39.0	39.0	38.9	38.9
	Stiffness, G', (10 ³ N/mm)	422	422	422	422	422	422	422	422	421
610/6	Strength, (kN/m)	41.2	41.0	40.9	40.7	40.6	40.4	40.3	40.2	40.1
	Stiffness, G', (10 ³ N/mm)	425	425	424	424	424	424	424	423	423

Thickness = 0.91 mm										
Support Connection Pattern		Span (mm)								
		2 700	2 850	3 000	3 150	3 300	3 450	3 600	3 750	3 900
610/4	Strength, (kN/m)	39.9	39.9	39.8	39.7	39.7	39.6	39.6	39.5	39.5
	Stiffness, G', (10 ³ N/mm)	423	423	423	422	422	422	422	422	422
610/6	Strength, (kN/m)	41.9	41.7	41.6	41.4	41.3	41.2	41.0	40.9	40.8
	Stiffness, G', (10 ³ N/mm)	425	425	425	425	424	424	424	424	424

Thickness = 0.121 mm										
Support Connection Pattern		Span (mm)								
		3 000	3 150	3 300	3 450	3 600	3 750	3 900	4 050	4 200
610/4	Strength, (kN/m)	41.2	41.1	41.0	41.0	40.9	40.8	40.8	40.7	40.7
	Stiffness, G', (10 ³ N/mm)	424	424	423	423	423	423	423	423	423
610/6	Strength, (kN/m)	43.5	43.3	43.2	43.0	42.8	42.7	42.6	42.5	42.3
	Stiffness, G', (10 ³ N/mm)	427	426	426	426	426	425	425	425	425

Thickness = 0.152 mm										
Support Connection Pattern		Span (mm)								
		3 300	3 450	3 600	3 750	3 900	4 050	4 200	4 350	4 500
610/4	Strength, (kN/m)	42.4	42.3	42.2	42.1	42.1	42.0	41.9	41.9	41.8
	Stiffness, G', (10 ³ N/mm)	424	424	424	424	424	424	424	423	423
610/6	Strength, (kN/m)	45.0	44.8	44.6	44.4	44.3	44.1	44.0	43.9	43.8
	Stiffness, G', (10 ³ N/mm)	427	427	427	427	426	426	426	426	426

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-ENP-19

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	
36/4	36	Strength (lbs/ft)	670	619	578	543	515	490	469	451	435	
		Stiffness, $G', (10^3 \text{ lbs/in})$	7.6	8.8	9.9	10.9	11.9	12.9	13.8	14.7	15.6	
	24	Strength (lbs/ft)	728	682	645	615	589	567	548	532	518	
		Stiffness, $G', (10^3 \text{ lbs/in})$	7.6	8.8	9.9	11.0	12.0	13.1	14.0	15.0	15.9	
	12	Strength (lbs/ft)	861	830	805	784	766	751	738	727	717	
		Stiffness, $G', (10^3 \text{ lbs/in})$	7.7	8.9	10.0	11.1	12.2	13.3	14.4	15.4	16.4	
	9	Strength (lbs/ft)	925	901	882	866	852	840	830	821	814	
		Stiffness, $G', (10^3 \text{ lbs/in})$	7.7	8.9	10.1	11.2	12.3	13.4	14.5	15.6	16.6	
	6	Strength (lbs/ft)	1012	998	986	977	969	962	956	951	946	
		Stiffness, $G', (10^3 \text{ lbs/in})$	7.7	8.9	10.1	11.3	12.4	13.6	14.7	15.8	16.8	
	36/7	36	Strength (lbs/ft)	959	864	790	731	683	637	599	567	540
			Stiffness, $G', (10^3 \text{ lbs/in})$	45.6	49.5	52.8	55.4	57.5	59.2	60.5	61.6	62.4
24		Strength (lbs/ft)	1039	949	878	821	774	736	703	673	646	
		Stiffness, $G', (10^3 \text{ lbs/in})$	46.0	50.2	53.7	56.6	59.0	61.0	62.7	64.1	65.3	
12		Strength (lbs/ft)	1254	1178	1117	1068	1028	994	965	940	918	
		Stiffness, $G', (10^3 \text{ lbs/in})$	47.0	51.7	55.7	59.2	62.3	65.0	67.4	69.5	71.4	
9		Strength (lbs/ft)	1379	1311	1257	1213	1177	1146	1120	1098	1078	
		Stiffness, $G', (10^3 \text{ lbs/in})$	47.5	52.4	56.7	60.5	63.8	66.9	69.6	72.0	74.2	
6		Strength (lbs/ft)	1585	1533	1491	1456	1428	1404	1383	1365	1350	
		Stiffness, $G', (10^3 \text{ lbs/in})$	48.3	53.5	58.1	62.3	66.1	69.5	72.6	75.5	78.1	
36/9		36	Strength (lbs/ft)	1377	1242	1133	1044	970	900	838	785	740
			Stiffness, $G', (10^3 \text{ lbs/in})$	47.4	51.9	55.7	58.9	61.5	63.8	65.6	67.1	68.3
	24	Strength (lbs/ft)	1446	1317	1213	1127	1056	995	944	891	846	
		Stiffness, $G', (10^3 \text{ lbs/in})$	47.6	52.2	56.2	59.6	62.5	64.9	67.0	68.7	70.2	
	12	Strength (lbs/ft)	1632	1521	1431	1356	1294	1241	1195	1156	1121	
		Stiffness, $G', (10^3 \text{ lbs/in})$	48.2	53.1	57.5	61.3	64.6	67.6	70.2	72.5	74.5	
	9	Strength (lbs/ft)	1740	1641	1560	1492	1435	1387	1346	1310	1278	
		Stiffness, $G', (10^3 \text{ lbs/in})$	48.5	53.6	58.1	62.1	65.7	68.9	71.7	74.3	76.6	
	6	Strength (lbs/ft)	1924	1845	1779	1725	1679	1640	1606	1577	1551	
		Stiffness, $G', (10^3 \text{ lbs/in})$	49.0	54.3	59.1	63.4	67.3	70.8	74.1	77.0	79.7	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.

2. Load values based upon attachment to base steel thickness greater than or equal to 1/4 inch.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-ENP-19

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	
36/4	36	Strength (lbs/ft)	755	712	677	647	621	599	579	562	547	
		Stiffness, $G', (10^3 \text{ lbs/in})$	15.4	17.0	18.4	19.8	21.2	22.4	23.6	24.7	25.7	
	24	Strength (lbs/ft)	848	811	780	753	730	710	693	678	664	
		Stiffness, $G', (10^3 \text{ lbs/in})$	15.5	17.2	18.7	20.2	21.6	22.9	24.2	25.4	26.6	
	12	Strength (lbs/ft)	1061	1037	1016	999	984	971	959	949	940	
		Stiffness, $G', (10^3 \text{ lbs/in})$	15.8	17.5	19.1	20.7	22.3	23.8	25.2	26.6	28.0	
	9	Strength (lbs/ft)	1158	1140	1125	1112	1101	1091	1083	1075	1068	
		Stiffness, $G', (10^3 \text{ lbs/in})$	15.9	17.6	19.3	21.0	22.6	24.1	25.6	27.1	28.5	
	6	Strength (lbs/ft)	1285	1275	1267	1259	1253	1248	1243	1239	1235	
		Stiffness, $G', (10^3 \text{ lbs/in})$	16.0	17.8	19.6	21.3	22.9	24.6	26.2	27.7	29.2	
	36/7	36	Strength (lbs/ft)	1030	956	895	844	797	757	722	692	665
			Stiffness, $G', (10^3 \text{ lbs/in})$	73.3	75.9	77.7	79.1	80.0	80.7	81.0	81.2	81.2
24		Strength (lbs/ft)	75	78	80	82	83	85	85	86	87	
		Stiffness, $G', (10^3 \text{ lbs/in})$	74.9	77.9	80.2	82.1	83.5	84.6	85.4	86.1	86.6	
12		Strength (lbs/ft)	1486	1426	1377	1336	1301	1270	1244	1221	1200	
		Stiffness, $G', (10^3 \text{ lbs/in})$	78.5	82.5	85.9	88.7	91.2	93.3	95.1	96.7	98.1	
9		Strength (lbs/ft)	1675	1623	1580	1543	1512	1485	1462	1442	1423	
		Stiffness, $G', (10^3 \text{ lbs/in})$	80.3	84.7	88.6	91.9	94.8	97.3	99.6	101.6	103.5	
6		Strength (lbs/ft)	1984	1945	1912	1884	1861	1840	1823	1807	1793	
		Stiffness, $G', (10^3 \text{ lbs/in})$	83.0	88.0	92.5	96.4	100.0	103.2	106.1	108.7	111.0	
36/9		36	Strength (lbs/ft)	1462	1350	1257	1178	1103	1036	979	929	886
			Stiffness, $G', (10^3 \text{ lbs/in})$	78.5	81.9	84.6	86.6	88.2	89.3	90.1	90.7	91.0
	24	Strength (lbs/ft)	1574	1467	1378	1303	1239	1184	1131	1081	1038	
		Stiffness, $G', (10^3 \text{ lbs/in})$	79.5	83.2	86.2	88.5	90.5	92.0	93.2	94.1	94.8	
	12	Strength (lbs/ft)	1877	1786	1710	1645	1590	1541	1499	1462	1429	
		Stiffness, $G', (10^3 \text{ lbs/in})$	81.8	86.2	89.9	93.1	95.8	98.2	100.2	101.9	103.5	
	9	Strength (lbs/ft)	2053	1972	1904	1846	1796	1752	1714	1681	1651	
		Stiffness, $G', (10^3 \text{ lbs/in})$	83.0	87.7	91.8	95.4	98.5	101.2	103.6	105.8	107.7	
	6	Strength (lbs/ft)	2346	2283	2230	2184	2145	2110	2080	2053	2029	
		Stiffness, $G', (10^3 \text{ lbs/in})$	84.8	90.1	94.7	98.8	102.5	105.8	108.7	111.4	113.8	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness greater than or equal to 1/4 inch.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-ENP-19

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	
36/4	36	Strength (lbs/ft)	822	786	756	729	706	685	667	651	636	
		Stiffness, $G', (10^3 \text{ lbs/in})$	33.7	35.8	37.8	39.6	41.2	42.7	44.0	45.3	46.4	
	24	Strength (lbs/ft)	948	917	890	866	845	827	811	796	783	
		Stiffness, $G', (10^3 \text{ lbs/in})$	34.4	36.7	38.9	40.9	42.8	44.5	46.1	47.7	49.1	
	12	Strength (lbs/ft)	1236	1215	1198	1182	1169	1157	1146	1137	1128	
		Stiffness, $G', (10^3 \text{ lbs/in})$	35.8	38.4	41.0	43.4	45.7	47.9	50.0	52.0	54.0	
	9	Strength (lbs/ft)	1366	1352	1339	1327	1317	1309	1301	1294	1287	
		Stiffness, $G', (10^3 \text{ lbs/in})$	36.3	39.2	41.8	44.4	46.9	49.3	51.6	53.8	55.9	
	6	Strength (lbs/ft)	1534	1526	1519	1513	1507	1503	1498	1494	1491	
		Stiffness, $G', (10^3 \text{ lbs/in})$	37.1	40.1	42.9	45.7	48.4	51.0	53.5	55.9	58.3	
	36/7	36	Strength (lbs/ft)	1086	1025	974	926	885	848	817	789	764
			Stiffness, $G', (10^3 \text{ lbs/in})$	115.0	115.0	114.7	114.0	113.2	112.3	111.2	110.1	109.1
24		Strength (lbs/ft)	1246	1188	1139	1097	1061	1029	1000	976	952	
		Stiffness, $G', (10^3 \text{ lbs/in})$	119.8	120.6	120.9	121.0	120.8	120.4	120.0	119.4	118.9	
12		Strength (lbs/ft)	1680	1631	1589	1553	1522	1494	1470	1448	1429	
		Stiffness, $G', (10^3 \text{ lbs/in})$	131.0	133.3	135.2	136.8	138.0	139.0	139.8	140.4	141.0	
9		Strength (lbs/ft)	1928	1885	1848	1816	1789	1764	1743	1724	1706	
		Stiffness, $G', (10^3 \text{ lbs/in})$	136.5	139.6	142.3	144.5	146.4	148.0	149.4	150.6	151.6	
6		Strength (lbs/ft)	2331	2299	2271	2247	2226	2208	2192	2177	2164	
		Stiffness, $G', (10^3 \text{ lbs/in})$	144.7	148.9	152.6	155.8	158.7	161.2	163.4	165.4	167.2	
36/9		36	Strength (lbs/ft)	1520	1426	1346	1268	1199	1139	1087	1041	1000
			Stiffness, $G', (10^3 \text{ lbs/in})$	128.4	129.3	129.6	129.4	129.1	128.3	127.5	126.6	125.5
	24	Strength (lbs/ft)	1670	1580	1504	1437	1379	1327	1275	1229	1189	
		Stiffness, $G', (10^3 \text{ lbs/in})$	131.6	133.0	133.9	134.4	134.5	134.4	134.1	133.6	133.0	
	12	Strength (lbs/ft)	2079	2002	1936	1878	1828	1784	1744	1709	1677	
		Stiffness, $G', (10^3 \text{ lbs/in})$	139.3	142.1	144.3	146.0	147.4	148.5	149.4	150.1	150.6	
	9	Strength (lbs/ft)	2316	2248	2188	2137	2092	2052	2017	1985	1956	
		Stiffness, $G', (10^3 \text{ lbs/in})$	143.3	146.7	149.6	152.0	154.0	155.7	157.1	158.3	159.3	
	6	Strength (lbs/ft)	2713	2659	2613	2572	2537	2506	2478	2453	2430	
		Stiffness, $G', (10^3 \text{ lbs/in})$	149.5	153.9	157.7	161.0	163.9	166.4	168.7	170.7	172.4	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.

2. Load values based upon attachment to base steel thickness greater than or equal to 1/4 inch.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.060 in.

Support connection: Hilti X-ENP-19

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	
36/4	36	Strength (lbs/ft)	780	754	731	711	692	676	662	649	637	
		Stiffness, G',(10 ³ lbs/in)	58.6	60.6	62.4	64.0	65.4	66.6	67.7	68.7	69.5	
	24	Strength (lbs/ft)	922	898	878	860	844	830	817	806	795	
		Stiffness, G',(10 ³ lbs/in)	61.0	63.5	65.7	67.8	69.6	71.3	72.9	74.3	75.6	
	12	Strength (lbs/ft)	1239	1225	1212	1200	1190	1181	1173	1166	1159	
		Stiffness, G',(10 ³ lbs/in)	65.7	69.0	72.1	75.0	77.8	80.3	82.8	85.0	87.2	
	9	Strength (lbs/ft)	1380	1369	1360	1352	1345	1338	1332	1327	1322	
		Stiffness, G',(10 ³ lbs/in)	67.7	71.3	74.8	78.0	81.1	84.0	86.8	89.5	92.0	
	6	Strength (lbs/ft)	1556	1550	1545	1541	1537	1534	1531	1528	1525	
		Stiffness, G',(10 ³ lbs/in)	70.2	74.3	78.2	81.9	85.5	88.8	92.1	95.2	98.2	
	36/7	36	Strength (lbs/ft)	1004	960	921	884	852	824	799	777	756
			Stiffness, G',(10 ³ lbs/in)	147.8	145.7	143.5	141.3	139.1	137.0	135.0	133.0	131.1
24		Strength (lbs/ft)	1181	1138	1102	1070	1042	1017	995	975	957	
		Stiffness, G',(10 ³ lbs/in)	157.2	155.8	154.4	152.9	151.4	149.9	148.5	147.0	145.7	
12		Strength (lbs/ft)	1656	1621	1590	1563	1539	1518	1499	1482	1466	
		Stiffness, G',(10 ³ lbs/in)	179.1	179.6	179.9	180.1	180.1	180.0	179.8	179.6	179.4	
9		Strength (lbs/ft)	1927	1896	1869	1845	1825	1806	1789	1774	1760	
		Stiffness, G',(10 ³ lbs/in)	190.2	191.6	192.8	193.7	194.4	195.0	195.4	195.8	196.1	
6		Strength (lbs/ft)	2360	2337	2318	2300	2285	2271	2259	2248	2238	
		Stiffness, G',(10 ³ lbs/in)	206.9	209.6	212.0	214.1	215.8	217.4	218.8	220.0	221.1	
36/9		36	Strength (lbs/ft)	1378	1308	1241	1181	1129	1082	1041	1004	971
			Stiffness, G',(10 ³ lbs/in)	170.3	168.5	166.5	164.4	162.2	160.0	157.8	155.6	153.5
	24	Strength (lbs/ft)	1546	1480	1422	1371	1326	1285	1244	1207	1174	
		Stiffness, G',(10 ³ lbs/in)	177.0	176.0	174.7	173.2	171.7	170.0	168.4	166.8	165.2	
	12	Strength (lbs/ft)	2004	1947	1898	1854	1815	1780	1749	1721	1695	
		Stiffness, G',(10 ³ lbs/in)	193.4	194.0	194.4	194.5	194.4	194.2	193.9	193.5	193.0	
	9	Strength (lbs/ft)	2269	2219	2174	2136	2101	2070	2042	2017	1994	
		Stiffness, G',(10 ³ lbs/in)	201.9	203.5	204.6	205.5	206.1	206.6	206.9	207.1	207.3	
	6	Strength (lbs/ft)	2707	2668	2634	2604	2577	2553	2532	2512	2494	
		Stiffness, G',(10 ³ lbs/in)	215.3	218.1	220.4	222.4	224.1	225.5	226.8	227.9	228.9	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness greater than or equal to 1/4 inch.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	
36/4	36	Strength (lbs/ft)	596	550	513	483	457	436	417	401	387	
		Stiffness, G', (10 ³ lbs/in)	7.5	8.6	9.7	10.7	11.6	12.6	13.4	14.3	15.1	
	24	Strength (lbs/ft)	647	607	574	547	524	504	488	473	460	
		Stiffness, G', (10 ³ lbs/in)	7.6	8.7	9.8	10.8	11.8	12.8	13.7	14.7	15.5	
	12	Strength (lbs/ft)	765	738	716	697	682	668	657	646	638	
		Stiffness, G', (10 ³ lbs/in)	7.6	8.8	9.9	11.1	12.1	13.2	14.2	15.2	16.2	
	9	Strength (lbs/ft)	822	801	784	770	758	747	738	731	724	
		Stiffness, G', (10 ³ lbs/in)	7.7	8.9	10.0	11.1	12.3	13.3	14.4	15.5	16.5	
	6	Strength (lbs/ft)	900	887	877	868	861	855	850	845	841	
		Stiffness, G', (10 ³ lbs/in)	7.7	8.9	10.1	11.3	12.4	13.5	14.6	15.7	16.8	
	36/7	36	Strength (lbs/ft)	852	768	702	650	607	567	533	505	480
			Stiffness, G', (10 ³ lbs/in)	42.9	46.0	48.5	50.5	52.0	53.2	54.1	54.8	55.4
24		Strength (lbs/ft)	923	843	781	730	689	654	625	599	575	
		Stiffness, G', (10 ³ lbs/in)	43.7	47.2	50.2	52.5	54.5	56.1	57.5	58.6	59.6	
12		Strength (lbs/ft)	1115	1047	994	950	914	884	859	837	817	
		Stiffness, G', (10 ³ lbs/in)	45.5	49.8	53.5	56.7	59.6	62.1	64.3	66.3	68.1	
9		Strength (lbs/ft)	1226	1166	1118	1079	1047	1020	997	977	960	
		Stiffness, G', (10 ³ lbs/in)	46.3	50.9	55.0	58.6	61.8	64.6	67.2	69.6	71.7	
6		Strength (lbs/ft)	1410	1363	1326	1296	1270	1249	1231	1215	1201	
		Stiffness, G', (10 ³ lbs/in)	47.5	52.5	57.0	61.1	64.8	68.1	71.2	74.0	76.5	
36/9		36	Strength (lbs/ft)	1224	1103	1007	927	862	800	745	698	658
			Stiffness, G', (10 ³ lbs/in)	45.1	48.9	51.9	54.4	56.4	57.9	59.2	60.2	60.9
	24	Strength (lbs/ft)	1285	1170	1078	1002	938	885	839	793	753	
		Stiffness, G', (10 ³ lbs/in)	45.6	49.6	52.9	55.7	58.1	60.0	61.6	62.9	64.1	
	12	Strength (lbs/ft)	1450	1352	1272	1206	1150	1103	1063	1028	997	
		Stiffness, G', (10 ³ lbs/in)	46.7	51.3	55.2	58.7	61.7	64.4	66.7	68.8	70.7	
	9	Strength (lbs/ft)	1547	1459	1387	1327	1277	1234	1197	1165	1137	
		Stiffness, G', (10 ³ lbs/in)	47.3	52.1	56.3	60.1	63.4	66.4	69.0	71.4	73.6	
	6	Strength (lbs/ft)	1711	1640	1582	1534	1493	1459	1429	1403	1380	
		Stiffness, G', (10 ³ lbs/in)	48.1	53.3	57.9	62.0	65.8	69.2	72.3	75.1	77.7	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range of 3/16 inch to 1/4 inch for X-EDNK22 fasteners and in the range of 3/16 inch to 3/8 inch for X-EDN19 fasteners.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)								
			4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
36/4	36	Strength (lbs/ft)	690	651	619	591	568	547	530	514	500
		Stiffness, G',(10 ³ lbs/in)	15.0	16.5	17.8	19.1	20.3	21.5	22.5	23.5	24.5
	24	Strength (lbs/ft)	775	741	713	688	668	649	634	620	607
		Stiffness, G',(10 ³ lbs/in)	15.2	16.8	18.2	19.6	21.0	22.2	23.4	24.6	25.7
	12	Strength (lbs/ft)	969	947	929	913	899	887	877	867	859
		Stiffness, G',(10 ³ lbs/in)	15.6	17.3	18.9	20.5	22.0	23.5	24.9	26.3	27.6
	9	Strength (lbs/ft)	969	947	929	913	899	887	877	867	859
		Stiffness, G',(10 ³ lbs/in)	15.8	17.5	19.2	20.8	22.4	23.9	25.4	26.9	28.3
	6	Strength (lbs/ft)	969	947	929	913	899	887	877	867	859
		Stiffness, G',(10 ³ lbs/in)	16.0	17.7	19.5	21.2	22.8	24.5	26.0	27.6	29.1
36/7	36	Strength (lbs/ft)	941	873	818	772	729	692	660	632	608
		Stiffness, G',(10 ³ lbs/in)	66.1	67.7	68.9	69.6	70.1	70.3	70.4	70.4	70.3
	24	Strength (lbs/ft)	1054	990	937	892	855	823	795	771	747
		Stiffness, G',(10 ³ lbs/in)	68.8	71.1	72.9	74.2	75.3	76.1	76.7	77.2	77.5
	12	Strength (lbs/ft)	1358	1304	1259	1221	1189	1161	1137	1116	1098
		Stiffness, G',(10 ³ lbs/in)	74.6	78.2	81.2	83.8	86.1	88.0	89.7	91.3	92.6
	9	Strength (lbs/ft)	1531	1484	1444	1411	1383	1358	1337	1318	1302
		Stiffness, G',(10 ³ lbs/in)	77.2	81.4	85.0	88.1	90.9	93.3	95.5	97.5	99.3
	6	Strength (lbs/ft)	1813	1778	1748	1723	1701	1682	1666	1652	1639
		Stiffness, G',(10 ³ lbs/in)	80.9	85.8	90.2	94.0	97.5	100.6	103.4	106.0	108.4
36/9	36	Strength (lbs/ft)	1335	1233	1148	1076	1008	947	894	849	810
		Stiffness, G',(10 ³ lbs/in)	71.9	74.2	75.9	77.1	77.9	78.4	78.7	78.8	78.8
	24	Strength (lbs/ft)	1438	1340	1259	1191	1132	1082	1033	988	949
		Stiffness, G',(10 ³ lbs/in)	73.7	76.5	78.7	80.4	81.7	82.7	83.5	84.1	84.5
	12	Strength (lbs/ft)	1716	1633	1563	1504	1453	1409	1370	1336	1306
		Stiffness, G',(10 ³ lbs/in)	77.7	81.6	84.8	87.6	90.0	92.1	93.9	95.5	96.8
	9	Strength (lbs/ft)	1876	1802	1740	1687	1642	1602	1567	1537	1509
		Stiffness, G',(10 ³ lbs/in)	79.7	84.0	87.8	91.0	93.9	96.4	98.7	100.7	102.5
	6	Strength (lbs/ft)	2144	2086	2038	1996	1960	1929	1901	1877	1855
		Stiffness, G',(10 ³ lbs/in)	82.5	87.5	91.9	95.9	99.4	102.6	105.4	108.0	110.4

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range of 3/16 inch to 1/4 inch for X-EDNK22 fasteners and in the range of 3/16 inch to 3/8 inch for X-EDN19 fasteners.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.048 in.

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)								
			5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0
36/4	36	Strength (lbs/ft)	773	740	712	687	666	647	630	615	602
		Stiffness, G', (10 ³ lbs/in)	31.9	33.8	35.5	37.0	38.4	39.7	40.9	41.9	42.9
	24	Strength (lbs/ft)	893	864	839	818	799	782	767	754	742
		Stiffness, G', (10 ³ lbs/in)	33.1	35.2	37.2	39.0	40.8	42.4	43.9	45.3	46.6
	12	Strength (lbs/ft)	997	972	951	932	916	901	888	876	866
		Stiffness, G', (10 ³ lbs/in)	35.1	37.7	40.2	42.5	44.8	46.9	48.9	50.9	52.8
	9	Strength (lbs/ft)	997	972	951	932	922	913	906	899	892
		Stiffness, G', (10 ³ lbs/in)	35.9	38.6	41.3	43.8	46.2	48.6	50.8	53.0	55.0
	6	Strength (lbs/ft)	1109	1100	1092	1086	1080	1074	1069	1065	1061
		Stiffness, G', (10 ³ lbs/in)	36.8	39.8	42.6	45.4	48.0	50.6	53.1	55.5	57.8
36/7	36	Strength (lbs/ft)	1020	964	916	874	835	801	772	746	723
		Stiffness, G', (10 ³ lbs/in)	98.7	98.2	97.4	96.7	95.7	94.8	93.8	92.9	91.9
	24	Strength (lbs/ft)	1174	1120	1075	1036	1002	973	947	924	903
		Stiffness, G', (10 ³ lbs/in)	105.9	106.2	106.3	106.2	106.0	105.6	105.3	104.8	104.4
	12	Strength (lbs/ft)	1588	1543	1504	1471	1443	1418	1395	1376	1358
		Stiffness, G', (10 ³ lbs/in)	121.7	123.9	125.7	127.1	128.3	129.4	130.2	131.0	131.6
	9	Strength (lbs/ft)	1588	1543	1504	1471	1443	1418	1395	1376	1358
		Stiffness, G', (10 ³ lbs/in)	129.2	132.2	134.7	136.9	138.8	140.4	141.9	143.2	144.3
	6	Strength (lbs/ft)	1613	1583	1558	1536	1517	1500	1485	1472	1460
		Stiffness, G', (10 ³ lbs/in)	139.9	144.0	147.6	150.8	153.6	156.2	158.4	160.5	162.4
36/9	36	Strength (lbs/ft)	1422	1335	1261	1190	1127	1071	1023	980	942
		Stiffness, G', (10 ³ lbs/in)	111.5	111.4	110.9	110.2	109.3	108.3	107.3	106.2	105.2
	24	Strength (lbs/ft)	1567	1484	1413	1351	1298	1251	1204	1162	1124
		Stiffness, G', (10 ³ lbs/in)	116.8	117.5	117.7	117.7	117.5	117.1	116.6	116.1	115.5
	12	Strength (lbs/ft)	1957	1886	1826	1773	1727	1686	1650	1617	1588
		Stiffness, G', (10 ³ lbs/in)	128.9	131.2	133.1	134.6	135.8	136.8	137.6	138.2	138.8
	9	Strength (lbs/ft)	1957	1886	1826	1773	1727	1686	1650	1617	1588
		Stiffness, G', (10 ³ lbs/in)	134.8	137.9	140.5	142.7	144.6	146.2	147.6	148.9	149.9
	6	Strength (lbs/ft)	1957	1886	1826	1782	1750	1722	1697	1675	1655
		Stiffness, G', (10 ³ lbs/in)	143.6	147.8	151.5	154.7	157.5	160.1	162.2	164.2	166.0

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range of 3/16 inch to 1/4 inch for X-EDNK22 fasteners and in the range of 3/16 inch to 3/8 inch for X-EDN19 fasteners.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.030 in.

Support connection: X-EDNK22, X-HSN 24

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	
36/4	36	Strength (lbs/ft)	479	440	407	381	359	340	324	309	294	
		Stiffness, G', (10 ³ lbs/in)	7.5	8.6	9.7	10.7	11.6	12.6	13.4	14.3	15.1	
	24	Strength (lbs/ft)	516	480	450	426	405	388	373	360	349	
		Stiffness, G', (10 ³ lbs/in)	7.6	8.7	9.8	10.8	11.8	12.8	13.7	14.7	15.5	
	12	Strength (lbs/ft)	605	578	556	538	523	510	499	489	480	
		Stiffness, G', (10 ³ lbs/in)	7.6	8.8	9.9	11.1	12.1	13.2	14.2	15.2	16.2	
	9	Strength (lbs/ft)	650	629	611	597	584	573	564	556	549	
		Stiffness, G', (10 ³ lbs/in)	7.7	8.9	10.0	11.1	12.3	13.3	14.4	15.5	16.5	
	6	Strength (lbs/ft)	717	703	691	682	674	667	661	655	651	
		Stiffness, G', (10 ³ lbs/in)	7.7	8.9	10.1	11.3	12.4	13.5	14.6	15.7	16.8	
	36/7	36	Strength (lbs/ft)	771	698	642	596	559	527	497	472	451
			Stiffness, G', (10 ³ lbs/in)	42.9	46.0	48.5	50.5	52.0	53.2	54.1	54.8	55.4
24		Strength (lbs/ft)	843	774	721	677	642	612	587	565	546	
		Stiffness, G', (10 ³ lbs/in)	43.7	47.2	50.2	52.5	54.5	56.1	57.5	58.6	59.6	
12		Strength (lbs/ft)	1032	976	932	895	866	840	819	801	785	
		Stiffness, G', (10 ³ lbs/in)	45.5	49.8	53.5	56.7	59.6	62.1	64.3	66.3	68.1	
9		Strength (lbs/ft)	1138	1090	1051	1020	993	971	953	937	922	
		Stiffness, G', (10 ³ lbs/in)	46.3	50.9	55.0	58.6	61.8	64.6	67.2	69.6	71.7	
6		Strength (lbs/ft)	1308	1272	1243	1220	1201	1184	1170	1158	1148	
		Stiffness, G', (10 ³ lbs/in)	47.5	52.5	57.0	61.1	64.8	68.1	71.2	74.0	76.5	
36/9		36	Strength (lbs/ft)	1095	991	907	838	781	732	683	642	607
			Stiffness, G', (10 ³ lbs/in)	45.1	48.9	51.9	54.4	56.4	57.9	59.2	60.2	60.9
	24	Strength (lbs/ft)	1156	1058	979	913	859	813	773	739	705	
		Stiffness, G', (10 ³ lbs/in)	45.6	49.6	52.9	55.7	58.1	60.0	61.6	62.9	64.1	
	12	Strength (lbs/ft)	1320	1238	1172	1116	1070	1031	997	967	942	
		Stiffness, G', (10 ³ lbs/in)	46.7	51.3	55.2	58.7	61.7	64.4	66.7	68.8	70.7	
	9	Strength (lbs/ft)	1413	1342	1283	1234	1193	1157	1127	1101	1078	
		Stiffness, G', (10 ³ lbs/in)	47.3	52.1	56.3	60.1	63.4	66.4	69.0	71.4	73.6	
	6	Strength (lbs/ft)	1567	1511	1466	1428	1396	1369	1346	1325	1307	
		Stiffness, G', (10 ³ lbs/in)	48.1	53.3	57.9	62.0	65.8	69.2	72.3	75.1	77.7	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range 1/8 inch to less than 3/16-inch.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.036 in.

Support connection: X-EDNK22, X-HSN 24

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	
36/4	36	Strength (lbs/ft)	492	460	433	411	391	374	358	343	330	
		Stiffness, G', (10 ³ lbs/in)	15.0	16.5	17.8	19.1	20.3	21.5	22.5	23.5	24.5	
	24	Strength (lbs/ft)	544	514	490	469	451	436	422	410	400	
		Stiffness, G', (10 ³ lbs/in)	15.2	16.8	18.2	19.6	21.0	22.2	23.4	24.6	25.7	
	12	Strength (lbs/ft)	672	651	632	617	603	591	581	572	564	
		Stiffness, G', (10 ³ lbs/in)	15.6	17.3	18.9	20.5	22.0	23.5	24.9	26.3	27.6	
	9	Strength (lbs/ft)	739	721	706	693	682	673	664	657	650	
		Stiffness, G', (10 ³ lbs/in)	15.8	17.5	19.2	20.8	22.4	23.9	25.4	26.9	28.3	
	6	Strength (lbs/ft)	835	824	814	806	798	792	787	782	777	
		Stiffness, G', (10 ³ lbs/in)	16.0	17.7	19.5	21.2	22.8	24.5	26.0	27.6	29.1	
	36/7	36	Strength (lbs/ft)	899	838	787	745	710	676	647	622	600
			Stiffness, G', (10 ³ lbs/in)	66.1	67.7	68.9	69.6	70.1	70.3	70.4	70.4	70.3
24		Strength (lbs/ft)	1017	959	911	872	838	809	784	762	742	
		Stiffness, G', (10 ³ lbs/in)	68.8	71.1	72.9	74.2	75.3	76.1	76.7	77.2	77.5	
12		Strength (lbs/ft)	1327	1280	1241	1208	1180	1156	1135	1117	1101	
		Stiffness, G', (10 ³ lbs/in)	74.6	78.2	81.2	83.8	86.1	88.0	89.7	91.3	92.6	
9		Strength (lbs/ft)	1499	1458	1425	1397	1373	1352	1334	1318	1304	
		Stiffness, G', (10 ³ lbs/in)	77.2	81.4	85.0	88.1	90.9	93.3	95.5	97.5	99.3	
6		Strength (lbs/ft)	1767	1738	1714	1694	1677	1662	1649	1637	1627	
		Stiffness, G', (10 ³ lbs/in)	80.9	85.8	90.2	94.0	97.5	100.6	103.4	106.0	108.4	
36/9		36	Strength (lbs/ft)	1259	1166	1089	1024	967	911	863	822	785
			Stiffness, G', (10 ³ lbs/in)	71.9	74.2	75.9	77.1	77.9	78.4	78.7	78.8	78.8
	24	Strength (lbs/ft)	1366	1279	1206	1144	1091	1045	1005	969	933	
		Stiffness, G', (10 ³ lbs/in)	73.7	76.5	78.7	80.4	81.7	82.7	83.5	84.1	84.5	
	12	Strength (lbs/ft)	1650	1578	1517	1465	1421	1382	1348	1318	1292	
		Stiffness, G', (10 ³ lbs/in)	77.7	81.6	84.8	87.6	90.0	92.1	93.9	95.5	96.8	
	9	Strength (lbs/ft)	1811	1747	1694	1649	1610	1576	1546	1520	1496	
		Stiffness, G', (10 ³ lbs/in)	79.7	84.0	87.8	91.0	93.9	96.4	98.7	100.7	102.5	
	6	Strength (lbs/ft)	2069	2022	1982	1948	1919	1893	1871	1851	1833	
		Stiffness, G', (10 ³ lbs/in)	82.5	87.5	91.9	95.9	99.4	102.6	105.4	108.0	110.4	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range 1/8 inch to less than 3/16-inch.

1.5 in. deck - 36 in. wide - 6 in. flute spacing

Thickness = 0.048 in.

Support connection: X-EDNK22, X-HSN 24

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - IMPERIAL

Support Connection Pattern	Sidelap Spacing (in.)		Span (ft)									
			5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	
36/4	36	Strength (lbs/ft)	589	560	535	514	495	478	464	449	435	
		Stiffness, G', (10 ³ lbs/in)	31.9	33.8	35.5	37.0	38.4	39.7	40.9	41.9	42.9	
	24	Strength (lbs/ft)	671	645	622	603	585	570	557	545	534	
		Stiffness, G', (10 ³ lbs/in)	33.1	35.2	37.2	39.0	40.8	42.4	43.9	45.3	46.6	
	12	Strength (lbs/ft)	871	852	836	822	810	799	789	780	772	
		Stiffness, G', (10 ³ lbs/in)	35.1	37.7	40.2	42.5	44.8	46.9	48.9	50.9	52.8	
	9	Strength (lbs/ft)	970	956	943	932	922	913	906	899	892	
		Stiffness, G', (10 ³ lbs/in)	35.9	38.6	41.3	43.8	46.2	48.6	50.8	53.0	55.0	
	6	Strength (lbs/ft)	1109	1100	1092	1086	1080	1074	1069	1065	1061	
		Stiffness, G', (10 ³ lbs/in)	36.8	39.8	42.6	45.4	48.0	50.6	53.1	55.5	57.8	
	36/7	36	Strength (lbs/ft)	911	868	832	801	774	751	730	712	694
			Stiffness, G', (10 ³ lbs/in)	98.7	98.2	97.4	96.7	95.7	94.8	93.8	92.9	91.9
24		Strength (lbs/ft)	1075	1035	1002	973	948	926	907	889	874	
		Stiffness, G', (10 ³ lbs/in)	105.9	106.2	106.3	106.2	106.0	105.6	105.3	104.8	104.4	
12		Strength (lbs/ft)	1488	1459	1433	1411	1392	1375	1361	1347	1335	
		Stiffness, G', (10 ³ lbs/in)	121.7	123.9	125.7	127.1	128.3	129.4	130.2	131.0	131.6	
9		Strength (lbs/ft)	1701	1677	1657	1639	1624	1610	1598	1587	1578	
		Stiffness, G', (10 ³ lbs/in)	129.2	132.2	134.7	136.9	138.8	140.4	141.9	143.2	144.3	
6		Strength (lbs/ft)	2008	1993	1980	1968	1959	1950	1942	1935	1929	
		Stiffness, G', (10 ³ lbs/in)	139.9	144.0	147.6	150.8	153.6	156.2	158.4	160.5	162.4	
36/9		36	Strength (lbs/ft)	1222	1156	1099	1051	1008	969	931	897	867
			Stiffness, G', (10 ³ lbs/in)	111.5	111.4	110.9	110.2	109.3	108.3	107.3	106.2	105.2
	24	Strength (lbs/ft)	1376	1315	1262	1217	1177	1142	1111	1083	1058	
		Stiffness, G', (10 ³ lbs/in)	116.8	117.5	117.7	117.7	117.5	117.1	116.6	116.1	115.5	
	12	Strength (lbs/ft)	1771	1724	1682	1646	1615	1587	1562	1540	1520	
		Stiffness, G', (10 ³ lbs/in)	128.9	131.2	133.1	134.6	135.8	136.8	137.6	138.2	138.8	
	9	Strength (lbs/ft)	1982	1942	1908	1878	1852	1828	1808	1789	1772	
		Stiffness, G', (10 ³ lbs/in)	134.8	137.9	140.5	142.7	144.6	146.2	147.6	148.9	149.9	
	6	Strength (lbs/ft)	2298	2272	2248	2228	2210	2194	2180	2168	2156	
		Stiffness, G', (10 ³ lbs/in)	143.6	147.8	151.5	154.7	157.5	160.1	162.2	164.2	166.0	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range 1/8 inch to less than 3/16-inch.

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 0.76 mm

Support connection: Hilti X-ENP-19

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - METRIC

Support Connection Pattern	Sidelap Spacing (mm)		Span (mm)									
			900	1050	1200	1350	1500	1650	1800	1950	2100	
914/4	900	Strength (kN/m)	9.9	9.1	8.5	8.0	7.6	7.2	6.9	6.7	6.4	
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.9	2.1	2.2	2.4	2.6	2.7	
	600	Strength (kN/m)	10.7	10.1	9.5	9.1	8.7	8.4	8.1	7.9	7.7	
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.9	2.1	2.3	2.4	2.6	2.8	
	300	Strength (kN/m)	12.7	12.2	11.9	11.5	11.3	11.1	10.9	10.7	10.6	
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.8	
	230	Strength (kN/m)	13.5	13.2	12.9	12.6	12.4	12.3	12.1	12.0	11.9	
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9	
	150	Strength (kN/m)	14.8	14.6	14.5	14.3	14.2	14.1	14.0	14.0	13.9	
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9	
	914/7	900	Strength (kN/m)	14.2	12.8	11.7	10.8	10.1	9.5	8.9	8.4	8.0
			Stiffness, $G', (10^3 \text{ N/mm})$	7.9	8.6	9.2	9.6	10.0	10.3	10.6	10.8	10.9
600		Strength (kN/m)	15.4	14.0	13.0	12.2	11.5	10.9	10.4	10.0	9.6	
		Stiffness, $G', (10^3 \text{ N/mm})$	8.0	8.7	9.3	9.8	10.3	10.6	10.9	11.2	11.4	
300		Strength (kN/m)	18.5	17.4	16.5	15.8	15.2	14.7	14.3	13.9	13.6	
		Stiffness, $G', (10^3 \text{ N/mm})$	8.2	9.0	9.7	10.3	10.8	11.3	11.7	12.1	12.5	
230		Strength (kN/m)	20.2	19.2	18.4	17.7	17.2	16.7	16.4	16.0	15.7	
		Stiffness, $G', (10^3 \text{ N/mm})$	8.2	9.1	9.8	10.5	11.1	11.6	12.1	12.5	12.9	
150		Strength (kN/m)	23.3	22.6	22.0	21.5	21.1	20.7	20.4	20.1	19.9	
		Stiffness, $G', (10^3 \text{ N/mm})$	8.4	9.3	10.1	10.8	11.5	12.1	12.6	13.1	13.6	
914/9		900	Strength (kN/m)	20.3	18.4	16.8	15.4	14.3	13.4	12.4	11.7	11.0
			Stiffness, $G', (10^3 \text{ N/mm})$	8.2	9.0	9.7	10.2	10.7	11.1	11.4	11.7	11.9
	600	Strength (kN/m)	21.3	19.5	17.9	16.7	15.6	14.7	14.0	13.2	12.6	
		Stiffness, $G', (10^3 \text{ N/mm})$	8.3	9.1	9.8	10.4	10.9	11.3	11.7	12.0	12.3	
	300	Strength (kN/m)	24.1	22.4	21.1	20.0	19.1	18.3	17.7	17.1	16.6	
		Stiffness, $G', (10^3 \text{ N/mm})$	8.4	9.2	10.0	10.6	11.2	11.8	12.2	12.6	13.0	
	230	Strength (kN/m)	25.5	24.1	22.9	21.9	21.0	20.3	19.7	19.2	18.7	
		Stiffness, $G', (10^3 \text{ N/mm})$	8.4	9.3	10.1	10.8	11.4	12.0	12.5	12.9	13.3	
	150	Strength (kN/m)	28.3	27.2	26.2	25.4	24.8	24.2	23.7	23.3	22.9	
		Stiffness, $G', (10^3 \text{ N/mm})$	8.5	9.4	10.3	11.0	11.7	12.3	12.9	13.4	13.9	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness greater than or equal to 6 mm.

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 0.91 mm

Support connection: Hilti X-ENP-19

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - METRIC

Support Connection Pattern	Sidelap Spacing (mm)		Span (mm)									
			1200	1350	1500	1650	1800	1950	2100	2250	2400	
914/4	900	Strength (kN/m)	11.1	10.5	10.0	9.6	9.2	8.9	8.6	8.3	8.1	
		Stiffness, $G', (10^3 \text{ N/mm})$	2.7	2.9	3.2	3.4	3.7	3.9	4.1	4.3	4.5	
	600	Strength (kN/m)	12.5	12.0	11.5	11.1	10.8	10.5	10.2	10.0	9.8	
		Stiffness, $G', (10^3 \text{ N/mm})$	2.7	3.0	3.2	3.5	3.7	4.0	4.2	4.4	4.6	
	300	Strength (kN/m)	15.6	15.3	15.0	14.7	14.5	14.3	14.1	14.0	13.8	
		Stiffness, $G', (10^3 \text{ N/mm})$	2.7	3.0	3.3	3.6	3.9	4.1	4.4	4.6	4.8	
	230	Strength (kN/m)	16.9	16.6	16.4	16.2	16.1	15.9	15.8	15.7	15.6	
		Stiffness, $G', (10^3 \text{ N/mm})$	2.7	3.0	3.3	3.6	3.9	4.2	4.4	4.7	4.9	
	150	Strength (kN/m)	18.8	18.7	18.6	18.5	18.4	18.3	18.2	18.2	18.1	
		Stiffness, $G', (10^3 \text{ N/mm})$	2.8	3.1	3.4	3.7	4.0	4.2	4.5	4.8	5.1	
	914/7	900	Strength (kN/m)	15.2	14.2	13.3	12.5	11.8	11.2	10.7	10.3	9.9
			Stiffness, $G', (10^3 \text{ N/mm})$	12.8	13.2	13.6	13.8	14.0	14.1	14.2	14.2	14.3
600		Strength (kN/m)	17.1	16.0	15.2	14.5	13.8	13.3	12.9	12.5	12.1	
		Stiffness, $G', (10^3 \text{ N/mm})$	13.1	13.6	14.0	14.3	14.6	14.8	15.0	15.1	15.2	
300		Strength (kN/m)	21.9	21.1	20.4	19.7	19.2	18.8	18.4	18.1	17.8	
		Stiffness, $G', (10^3 \text{ N/mm})$	13.7	14.4	15.0	15.5	15.9	16.3	16.6	16.9	17.2	
230		Strength (kN/m)	24.5	23.7	23.1	22.5	22.1	21.7	21.3	21.0	20.8	
		Stiffness, $G', (10^3 \text{ N/mm})$	14.0	14.7	15.4	16.0	16.5	16.9	17.3	17.7	18.0	
150		Strength (kN/m)	29.2	28.6	28.2	27.8	27.4	27.1	26.9	26.6	26.4	
		Stiffness, $G', (10^3 \text{ N/mm})$	14.4	15.3	16.1	16.8	17.4	18.0	18.5	19.0	19.4	
914/9		900	Strength (kN/m)	21.6	20.0	18.6	17.4	16.4	15.4	14.5	13.8	13.2
			Stiffness, $G', (10^3 \text{ N/mm})$	13.7	14.3	14.8	15.1	15.4	15.6	15.8	15.9	15.9
	600	Strength (kN/m)	23.3	21.7	20.4	19.3	18.3	17.5	16.8	16.0	15.4	
		Stiffness, $G', (10^3 \text{ N/mm})$	13.8	14.5	15.0	15.5	15.8	16.1	16.3	16.5	16.6	
	300	Strength (kN/m)	27.7	26.4	25.3	24.3	23.5	22.8	22.2	21.6	21.1	
		Stiffness, $G', (10^3 \text{ N/mm})$	14.2	15.0	15.7	16.2	16.7	17.1	17.5	17.8	18.1	
	230	Strength (kN/m)	30.1	28.9	27.9	27.0	26.3	25.6	25.1	24.6	24.1	
		Stiffness, $G', (10^3 \text{ N/mm})$	14.4	15.2	16.0	16.6	17.1	17.6	18.0	18.4	18.8	
	150	Strength (kN/m)	34.5	33.6	32.9	32.2	31.6	31.1	30.7	30.3	29.9	
		Stiffness, $G', (10^3 \text{ N/mm})$	14.7	15.7	16.5	17.2	17.9	18.4	19.0	19.4	19.9	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness greater than or equal to 6 mm.

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 1.21 mm

Support connection: Hilti X-ENP-19

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - METRIC

Support Connection Pattern	Sidelap Spacing (mm)		Span (mm)									
			1500	1650	1800	1950	2100	2250	2400	2550	2700	
914/4	900	Strength (kN/m)	12.2	11.6	11.2	10.8	10.4	10.1	9.9	9.6	9.4	
		Stiffness, $G', (10^3 \text{ N/mm})$	5.8	6.2	6.6	6.9	7.2	7.4	7.7	7.9	8.1	
	600	Strength (kN/m)	14.0	13.5	13.1	12.8	12.5	12.2	12.0	11.8	11.6	
		Stiffness, $G', (10^3 \text{ N/mm})$	6.0	6.4	6.7	7.1	7.4	7.7	8.0	8.3	8.5	
	300	Strength (kN/m)	18.2	17.9	17.6	17.4	17.2	17.0	16.9	16.8	16.6	
		Stiffness, $G', (10^3 \text{ N/mm})$	6.2	6.7	7.1	7.5	7.9	8.3	8.7	9.0	9.4	
	230	Strength (kN/m)	19.9	19.7	19.5	19.4	19.2	19.1	19.0	18.9	18.8	
		Stiffness, $G', (10^3 \text{ N/mm})$	6.3	6.8	7.2	7.7	8.1	8.5	8.9	9.3	9.7	
	150	Strength (kN/m)	22.5	22.4	22.3	22.2	22.1	22.0	22.0	21.9	21.9	
		Stiffness, $G', (10^3 \text{ N/mm})$	6.4	6.9	7.4	7.9	8.4	8.8	9.3	9.7	10.1	
	914/7	900	Strength (kN/m)	16.1	15.2	14.4	13.7	13.1	12.6	12.1	11.7	11.3
			Stiffness, $G', (10^3 \text{ N/mm})$	20.2	20.2	20.2	20.1	19.9	19.8	19.6	19.4	19.2
600		Strength (kN/m)	18.4	17.6	16.9	16.2	15.7	15.2	14.8	14.4	14.1	
		Stiffness, $G', (10^3 \text{ N/mm})$	21.0	21.2	21.2	21.3	21.2	21.2	21.1	21.0	20.9	
300		Strength (kN/m)	24.8	24.1	23.5	23.0	22.5	22.1	21.7	21.4	21.1	
		Stiffness, $G', (10^3 \text{ N/mm})$	22.9	23.4	23.7	24.0	24.2	24.4	24.6	24.7	24.8	
230		Strength (kN/m)	28.2	27.5	27.0	26.5	26.1	25.7	25.4	25.1	24.9	
		Stiffness, $G', (10^3 \text{ N/mm})$	23.8	24.4	24.8	25.2	25.6	25.8	26.1	26.3	26.5	
150		Strength (kN/m)	34.3	33.9	33.5	33.1	32.8	32.5	32.3	32.1	31.9	
		Stiffness, $G', (10^3 \text{ N/mm})$	25.3	26.1	26.7	27.3	27.8	28.2	28.6	29.0	29.3	
914/9		900	Strength (kN/m)	22.5	21.1	19.9	18.8	17.8	16.9	16.1	15.5	14.9
			Stiffness, $G', (10^3 \text{ N/mm})$	22.5	22.7	22.7	22.7	22.7	22.6	22.4	22.3	22.1
	600	Strength (kN/m)	24.7	23.4	22.2	21.3	20.4	19.7	18.9	18.2	17.6	
		Stiffness, $G', (10^3 \text{ N/mm})$	23.0	23.3	23.5	23.6	23.6	23.6	23.6	23.5	23.4	
	300	Strength (kN/m)	30.7	29.6	28.6	27.8	27.0	26.4	25.8	25.3	24.8	
		Stiffness, $G', (10^3 \text{ N/mm})$	24.4	24.9	25.3	25.6	25.8	26.1	26.2	26.3	26.4	
	230	Strength (kN/m)	33.9	32.9	32.0	31.2	30.6	30.0	29.5	29.0	28.6	
		Stiffness, $G', (10^3 \text{ N/mm})$	25.0	25.6	26.1	26.5	26.9	27.2	27.4	27.7	27.8	
	150	Strength (kN/m)	40.0	39.2	38.5	37.9	37.4	36.9	36.5	36.2	35.8	
		Stiffness, $G', (10^3 \text{ N/mm})$	26.1	26.9	27.6	28.2	28.7	29.1	29.5	29.9	30.2	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness greater than or equal to 6 mm.

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 1.52 mm

Support connection: Hilti X-ENP-19

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - METRIC

Support Connection Pattern	Sidelap Spacing (mm)		Span (mm)									
			1800	1950	2100	2250	2400	2550	2700	2850	3000	
914/4	900	Strength (kN/m)	11.5	11.1	10.8	10.5	10.2	10.0	9.8	9.6	9.4	
		Stiffness, $G', (10^3 \text{ N/mm})$	10.2	10.6	10.9	11.2	11.4	11.6	11.8	12.0	12.2	
	600	Strength (kN/m)	13.6	13.3	13.0	12.7	12.5	12.3	12.1	11.9	11.8	
		Stiffness, $G', (10^3 \text{ N/mm})$	10.6	11.1	11.5	11.8	12.1	12.4	12.7	13.0	13.2	
	300	Strength (kN/m)	18.2	18.0	17.8	17.7	17.5	17.4	17.3	17.2	17.1	
		Stiffness, $G', (10^3 \text{ N/mm})$	11.4	12.0	12.5	13.0	13.5	14.0	14.4	14.8	15.2	
	230	Strength (kN/m)	20.1	20.0	19.8	19.7	19.6	19.5	19.4	19.3	19.3	
		Stiffness, $G', (10^3 \text{ N/mm})$	11.7	12.4	13.0	13.5	14.1	14.6	15.1	15.5	16.0	
	150	Strength (kN/m)	22.8	22.7	22.7	22.6	22.5	22.5	22.4	22.4	22.4	
		Stiffness, $G', (10^3 \text{ N/mm})$	12.2	12.9	13.6	14.2	14.8	15.4	16.0	16.5	17.1	
	914/7	900	Strength (kN/m)	14.9	14.2	13.7	13.1	12.6	12.2	11.9	11.5	11.2
			Stiffness, $G', (10^3 \text{ N/mm})$	26.0	25.7	25.3	24.9	24.5	24.2	23.8	23.5	23.2
600		Strength (kN/m)	17.5	16.9	16.3	15.8	15.4	15.1	14.7	14.4	14.2	
		Stiffness, $G', (10^3 \text{ N/mm})$	27.6	27.4	27.2	26.9	26.7	26.4	26.2	25.9	25.7	
300		Strength (kN/m)	24.5	24.0	23.5	23.1	22.8	22.4	22.2	21.9	21.7	
		Stiffness, $G', (10^3 \text{ N/mm})$	31.4	31.6	31.6	31.7	31.7	31.7	31.6	31.6	31.6	
230		Strength (kN/m)	28.1	27.7	27.3	26.9	26.6	26.3	26.1	25.9	25.7	
		Stiffness, $G', (10^3 \text{ N/mm})$	33.2	33.5	33.7	33.8	34.0	34.1	34.1	34.2	34.3	
150		Strength (kN/m)	34.8	34.4	34.2	33.9	33.7	33.5	33.3	33.1	33.0	
		Stiffness, $G', (10^3 \text{ N/mm})$	36.2	36.7	37.2	37.5	37.9	38.2	38.4	38.6	38.8	
914/9		900	Strength (kN/m)	20.4	19.4	18.4	17.5	16.8	16.1	15.5	14.9	14.4
			Stiffness, $G', (10^3 \text{ N/mm})$	29.9	29.6	29.3	28.9	28.6	28.2	27.8	27.4	27.1
	600	Strength (kN/m)	22.9	21.9	21.0	20.3	19.6	19.0	18.5	17.9	17.4	
		Stiffness, $G', (10^3 \text{ N/mm})$	31.1	30.9	30.7	30.5	30.2	29.9	29.7	29.4	29.1	
	300	Strength (kN/m)	29.6	28.8	28.1	27.4	26.8	26.3	25.9	25.5	25.1	
		Stiffness, $G', (10^3 \text{ N/mm})$	33.9	34.0	34.1	34.2	34.2	34.1	34.1	34.0	34.0	
	230	Strength (kN/m)	33.2	32.4	31.8	31.2	30.7	30.2	29.8	29.4	29.1	
		Stiffness, $G', (10^3 \text{ N/mm})$	35.3	35.5	35.8	35.9	36.0	36.1	36.2	36.2	36.2	
	150	Strength (kN/m)	39.9	39.3	38.8	38.4	38.0	37.6	37.3	37.0	36.8	
		Stiffness, $G', (10^3 \text{ N/mm})$	37.7	38.2	38.6	39.0	39.3	39.6	39.8	40.0	40.2	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness greater than or equal to 6 mm.

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 0.76 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - METRIC

Support Connection Pattern	Sidelap Spacing (mm)		Span (mm)								
			900	1050	1200	1350	1500	1650	1800	1950	2100
914/4	900	Strength (kN/m)	8.8	8.1	7.6	7.1	6.8	6.4	6.2	5.9	5.7
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.8	2.0	2.2	2.3	2.5	2.6
	600	Strength (kN/m)	9.5	8.9	8.5	8.1	7.7	7.5	7.2	7.0	6.8
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.9	2.0	2.2	2.4	2.5	2.7
	300	Strength (kN/m)	11.3	10.9	10.5	10.3	10.0	9.8	9.7	9.5	9.4
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.6	2.8
	230	Strength (kN/m)	12.0	11.7	11.5	11.2	11.1	10.9	10.8	10.7	10.6
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.8
	150	Strength (kN/m)	13.2	13.0	12.9	12.7	12.6	12.5	12.5	12.4	12.3
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9
914/7	900	Strength (kN/m)	12.6	11.4	10.4	9.6	9.0	8.4	7.9	7.5	7.1
		Stiffness, $G', (10^3 \text{ N/mm})$	7.5	8.0	8.5	8.8	9.1	9.3	9.5	9.6	9.7
	600	Strength (kN/m)	13.6	12.5	11.5	10.8	10.2	9.7	9.3	8.9	8.5
		Stiffness, $G', (10^3 \text{ N/mm})$	7.6	8.2	8.7	9.2	9.5	9.8	10.1	10.3	10.4
	300	Strength (kN/m)	16.5	15.5	14.7	14.0	13.5	13.1	12.7	12.4	12.1
		Stiffness, $G', (10^3 \text{ N/mm})$	7.9	8.7	9.3	9.9	10.4	10.8	11.2	11.6	11.9
	230	Strength (kN/m)	17.9	17.1	16.4	15.8	15.3	14.9	14.6	14.3	14.0
		Stiffness, $G', (10^3 \text{ N/mm})$	8.0	8.8	9.5	10.2	10.7	11.2	11.7	12.1	12.5
	150	Strength (kN/m)	20.8	20.1	19.5	19.1	18.7	18.4	18.2	17.9	17.7
		Stiffness, $G', (10^3 \text{ N/mm})$	8.2	9.1	9.9	10.6	11.3	11.9	12.4	12.9	13.3
914/9	900	Strength (kN/m)	18.1	16.3	14.9	13.7	12.8	11.9	11.1	10.4	9.8
		Stiffness, $G', (10^3 \text{ N/mm})$	7.8	8.5	9.0	9.5	9.8	10.1	10.3	10.5	10.7
	600	Strength (kN/m)	19.0	17.3	15.9	14.8	13.9	13.1	12.4	11.8	11.2
		Stiffness, $G', (10^3 \text{ N/mm})$	7.9	8.6	9.2	9.7	10.1	10.5	10.8	11.0	11.2
	300	Strength (kN/m)	21.4	20.0	18.8	17.8	17.0	16.3	15.7	15.2	14.8
		Stiffness, $G', (10^3 \text{ N/mm})$	8.1	8.9	9.6	10.2	10.7	11.2	11.6	12.0	12.3
	230	Strength (kN/m)	22.7	21.4	20.3	19.4	18.7	18.1	17.5	17.0	16.6
		Stiffness, $G', (10^3 \text{ N/mm})$	8.2	9.0	9.8	10.4	11.0	11.5	12.0	12.4	12.8
	150	Strength (kN/m)	25.2	24.2	23.3	22.6	22.0	21.5	21.1	20.7	20.4
		Stiffness, $G', (10^3 \text{ N/mm})$	8.3	9.2	10.0	10.8	11.4	12.0	12.6	13.1	13.5

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range of 5 mm to 6 mm for X-EDNK22 fasteners, in the range of 5 mm to 10mm for X-EDN19 fasteners and in the range of 5 mm to 10 mm for X-HSN24 fasteners.

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 0.91 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - METRIC

Support Connection Pattern	Sidelap Spacing (mm)		Span (mm)								
			1200	1350	1500	1650	1800	1950	2100	2250	2400
914/4	900	Strength (kN/m)	10.2	9.6	9.1	8.7	8.4	8.1	7.8	7.6	7.4
		Stiffness, $G', (10^3 \text{ N/mm})$	2.6	2.8	3.1	3.3	3.5	3.7	3.9	4.1	4.3
	600	Strength (kN/m)	11.4	10.9	10.5	10.2	9.9	9.6	9.4	9.2	9.0
		Stiffness, $G', (10^3 \text{ N/mm})$	2.6	2.9	3.2	3.4	3.6	3.9	4.1	4.3	4.5
	300	Strength (kN/m)	14.3	13.9	13.7	13.4	13.2	13.1	12.9	12.8	12.7
		Stiffness, $G', (10^3 \text{ N/mm})$	2.7	3.0	3.3	3.5	3.8	4.1	4.3	4.5	4.8
	230	Strength (kN/m)	14.3	13.9	13.7	13.4	13.2	13.1	12.9	12.8	12.7
		Stiffness, $G', (10^3 \text{ N/mm})$	2.7	3.0	3.3	3.6	3.9	4.1	4.4	4.6	4.9
	150	Strength (kN/m)	14.3	13.9	13.7	13.4	13.2	13.1	12.9	12.8	12.7
		Stiffness, $G', (10^3 \text{ N/mm})$	2.8	3.1	3.4	3.7	3.9	4.2	4.5	4.8	5.0
914/7	900	Strength (kN/m)	13.9	12.9	12.1	11.4	10.8	10.3	9.8	9.4	9.0
		Stiffness, $G', (10^3 \text{ N/mm})$	11.5	11.8	12.1	12.2	12.3	12.3	12.4	12.4	12.4
	600	Strength (kN/m)	15.6	14.6	13.9	13.2	12.7	12.2	11.8	11.4	11.1
		Stiffness, $G', (10^3 \text{ N/mm})$	12.0	12.4	12.7	13.0	13.2	13.3	13.5	13.5	13.6
	300	Strength (kN/m)	20.1	19.3	18.6	18.0	17.6	17.2	16.8	16.5	16.2
		Stiffness, $G', (10^3 \text{ N/mm})$	13.0	13.6	14.2	14.6	15.0	15.4	15.7	16.0	16.2
	230	Strength (kN/m)	22.4	21.7	21.1	20.6	20.2	19.8	19.5	19.2	19.0
		Stiffness, $G', (10^3 \text{ N/mm})$	13.4	14.1	14.8	15.3	15.8	16.2	16.6	17.0	17.3
	150	Strength (kN/m)	26.7	26.2	25.8	25.4	25.1	24.8	24.6	24.4	24.2
		Stiffness, $G', (10^3 \text{ N/mm})$	14.1	14.9	15.7	16.4	17.0	17.6	18.1	18.5	18.9
914/9	900	Strength (kN/m)	19.7	18.2	17.0	15.9	15.0	14.1	13.3	12.6	12.0
		Stiffness, $G', (10^3 \text{ N/mm})$	12.5	13.0	13.3	13.5	13.6	13.7	13.8	13.8	13.8
	600	Strength (kN/m)	21.3	19.8	18.6	17.6	16.8	16.0	15.3	14.7	14.1
		Stiffness, $G', (10^3 \text{ N/mm})$	12.8	13.3	13.7	14.1	14.3	14.5	14.6	14.7	14.8
	300	Strength (kN/m)	25.3	24.1	23.1	22.2	21.5	20.8	20.3	19.8	19.3
		Stiffness, $G', (10^3 \text{ N/mm})$	13.5	14.2	14.8	15.3	15.7	16.1	16.4	16.7	17.0
	230	Strength (kN/m)	27.5	26.4	25.5	24.7	24.0	23.4	22.9	22.5	22.1
		Stiffness, $G', (10^3 \text{ N/mm})$	13.8	14.6	15.3	15.8	16.3	16.8	17.2	17.5	17.9
	150	Strength (kN/m)	31.6	30.7	30.0	29.4	28.9	28.4	28.0	27.7	27.4
		Stiffness, $G', (10^3 \text{ N/mm})$	14.4	15.2	16.0	16.7	17.3	17.9	18.4	18.9	19.3

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range of 5 mm to 6 mm for X-EDNK22 fasteners, in the range of 5 mm to 10mm for X-EDN19 fasteners and in the range of 5 mm to 10 mm for X-HSN24 fasteners.

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 1.21 mm

Support connection: Hilti X-EDN19, X-EDNK22, X-HSN 24

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - METRIC

Support Connection Pattern	Sidelap Spacing (mm)		Span (mm)								
			1500	1650	1800	1950	2100	2250	2400	2550	2700
914/4	900	Strength (kN/m)	11.4	10.9	10.5	10.2	9.8	9.6	9.3	9.1	8.9
		Stiffness, $G', (10^3 \text{ N/mm})$	5.5	5.9	6.2	6.4	6.7	6.9	7.1	7.3	7.5
	600	Strength (kN/m)	13.2	12.8	12.4	12.1	11.8	11.6	11.3	11.1	11.0
		Stiffness, $G', (10^3 \text{ N/mm})$	5.7	6.1	6.5	6.8	7.1	7.4	7.6	7.9	8.1
	300	Strength (kN/m)	14.7	14.3	14.0	13.8	13.5	13.3	13.1	12.9	12.8
		Stiffness, $G', (10^3 \text{ N/mm})$	6.1	6.5	7.0	7.4	7.8	8.1	8.5	8.8	9.2
	230	Strength (kN/m)	14.7	14.3	14.0	13.8	13.5	13.3	13.2	13.1	13.0
		Stiffness, $G', (10^3 \text{ N/mm})$	6.2	6.7	7.1	7.6	8.0	8.4	8.8	9.2	9.5
	150	Strength (kN/m)	16.3	16.2	16.0	15.9	15.9	15.8	15.7	15.7	15.6
		Stiffness, $G', (10^3 \text{ N/mm})$	6.4	6.9	7.4	7.9	8.3	8.8	9.2	9.6	10.0
914/7	900	Strength (kN/m)	15.1	14.3	13.6	13.0	12.4	11.9	11.4	11.1	10.7
		Stiffness, $G', (10^3 \text{ N/mm})$	17.3	17.3	17.2	17.0	16.9	16.7	16.5	16.4	16.2
	600	Strength (kN/m)	17.4	16.6	15.9	15.3	14.8	14.4	14.0	13.7	13.4
		Stiffness, $G', (10^3 \text{ N/mm})$	18.6	18.7	18.7	18.7	18.7	18.6	18.5	18.5	18.4
	300	Strength (kN/m)	23.5	22.8	22.2	21.8	21.3	21.0	20.6	20.3	20.1
		Stiffness, $G', (10^3 \text{ N/mm})$	21.3	21.7	22.1	22.3	22.5	22.7	22.9	23.0	23.2
	230	Strength (kN/m)	23.5	22.8	22.2	21.8	21.3	21.0	20.6	20.3	20.1
		Stiffness, $G', (10^3 \text{ N/mm})$	22.5	23.1	23.5	23.9	24.2	24.5	24.8	25.0	25.2
	150	Strength (kN/m)	23.8	23.4	23.0	22.7	22.4	22.1	21.9	21.7	21.6
		Stiffness, $G', (10^3 \text{ N/mm})$	24.5	25.2	25.8	26.4	26.9	27.4	27.8	28.1	28.5
914/9	900	Strength (kN/m)	21.0	19.8	18.7	17.7	16.7	15.9	15.2	14.5	14.0
		Stiffness, $G', (10^3 \text{ N/mm})$	19.6	19.6	19.5	19.4	19.2	19.1	18.9	18.7	18.5
	600	Strength (kN/m)	23.2	21.9	20.9	20.0	19.2	18.5	17.9	17.2	16.7
		Stiffness, $G', (10^3 \text{ N/mm})$	20.5	20.6	20.7	20.7	20.7	20.6	20.5	20.4	20.4
	300	Strength (kN/m)	28.9	27.9	27.0	26.2	25.5	24.9	24.4	23.9	23.5
		Stiffness, $G', (10^3 \text{ N/mm})$	22.6	23.0	23.3	23.6	23.8	24.0	24.2	24.3	24.4
	230	Strength (kN/m)	28.9	27.9	27.0	26.2	25.5	24.9	24.4	23.9	23.5
		Stiffness, $G', (10^3 \text{ N/mm})$	23.5	24.1	24.5	24.9	25.2	25.5	25.8	26.0	26.2
	150	Strength (kN/m)	28.9	27.9	27.0	26.3	25.8	25.4	25.1	24.7	24.4
		Stiffness, $G', (10^3 \text{ N/mm})$	25.1	25.9	26.5	27.1	27.6	28.0	28.4	28.8	29.1

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range of 5 mm to 6 mm for X-EDNK22 fasteners, in the range of 5 mm to 10mm for X-EDN19 fasteners and in the range of 5 mm to 10 mm for X-HSN24 fasteners.

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 0.76 mm

Support connection: X-EDNK22, X-HSN 24

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - METRIC

Support Connection Pattern	Sidelap Spacing (mm)		Span (mm)									
			900	1050	1200	1350	1500	1650	1800	1950	2100	
914/4	900	Strength (kN/m)	7.2	6.7	6.2	5.8	5.5	5.2	5.0	4.8	4.6	
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.8	2.0	2.2	2.3	2.5	2.6	
	600	Strength (kN/m)	7.8	7.3	6.9	6.5	6.2	6.0	5.8	5.6	5.4	
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.9	2.0	2.2	2.4	2.5	2.7	
	300	Strength (kN/m)	9.2	8.8	8.5	8.3	8.1	7.9	7.8	7.6	7.5	
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.6	2.8	
	230	Strength (kN/m)	9.8	9.5	9.3	9.1	8.9	8.8	8.7	8.6	8.5	
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.8	
	150	Strength (kN/m)	10.8	10.6	10.5	10.4	10.3	10.2	10.1	10.0	10.0	
		Stiffness, $G', (10^3 \text{ N/mm})$	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9	
	914/7	900	Strength (kN/m)	11.4	10.3	9.5	8.8	8.3	7.8	7.4	7.0	6.7
			Stiffness, $G', (10^3 \text{ N/mm})$	7.5	8.0	8.5	8.8	9.1	9.3	9.5	9.6	9.7
600		Strength (kN/m)	12.5	11.5	10.7	10.0	9.5	9.1	8.7	8.4	8.1	
		Stiffness, $G', (10^3 \text{ N/mm})$	7.6	8.2	8.7	9.2	9.5	9.8	10.1	10.3	10.4	
300		Strength (kN/m)	15.2	14.4	13.8	13.2	12.8	12.4	12.1	11.8	11.6	
		Stiffness, $G', (10^3 \text{ N/mm})$	7.9	8.7	9.3	9.9	10.4	10.8	11.2	11.6	11.9	
230		Strength (kN/m)	16.7	15.9	15.4	14.9	14.5	14.2	13.9	13.7	13.5	
		Stiffness, $G', (10^3 \text{ N/mm})$	8.0	8.8	9.5	10.2	10.7	11.2	11.7	12.1	12.5	
150		Strength (kN/m)	19.2	18.7	18.3	18.0	17.7	17.4	17.2	17.1	16.9	
		Stiffness, $G', (10^3 \text{ N/mm})$	8.2	9.1	9.9	10.6	11.3	11.9	12.4	12.9	13.3	
914/9		900	Strength (kN/m)	16.2	14.6	13.4	12.4	11.6	10.8	10.1	9.5	9.0
			Stiffness, $G', (10^3 \text{ N/mm})$	7.8	8.5	9.0	9.5	9.8	10.1	10.3	10.5	10.7
	600	Strength (kN/m)	17.1	15.6	14.5	13.5	12.7	12.0	11.4	10.9	10.5	
		Stiffness, $G', (10^3 \text{ N/mm})$	7.9	8.6	9.2	9.7	10.1	10.5	10.8	11.0	11.2	
	300	Strength (kN/m)	19.5	18.3	17.3	16.5	15.8	15.2	14.7	14.3	13.9	
		Stiffness, $G', (10^3 \text{ N/mm})$	8.1	8.9	9.6	10.2	10.7	11.2	11.6	12.0	12.3	
	230	Strength (kN/m)	20.7	19.6	18.8	18.1	17.5	16.9	16.5	16.1	15.8	
		Stiffness, $G', (10^3 \text{ N/mm})$	8.2	9.0	9.8	10.4	11.0	11.5	12.0	12.4	12.8	
	150	Strength (kN/m)	23.0	22.2	21.6	21.0	20.6	20.2	19.8	19.5	19.3	
		Stiffness, $G', (10^3 \text{ N/mm})$	8.3	9.2	10.0	10.8	11.4	12.0	12.6	13.1	13.5	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range 3 mm to less than 5 mm.

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 0.91 mm

Support connection: X-EDNK22, X-HSN 24

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - METRIC

Support Connection Pattern	Sidelap Spacing (mm)		Span (mm)									
			1200	1350	1500	1650	1800	1950	2100	2250	2400	
914/4	900	Strength (kN/m)	7.5	7.0	6.6	6.3	6.0	5.8	5.6	5.4	5.2	
		Stiffness, G',(10 ³ N/mm)	2.6	2.8	3.1	3.3	3.5	3.7	3.9	4.1	4.3	
	600	Strength (kN/m)	8.3	7.9	7.5	7.3	7.0	6.8	6.6	6.4	6.3	
		Stiffness, G',(10 ³ N/mm)	2.6	2.9	3.2	3.4	3.6	3.9	4.1	4.3	4.5	
	300	Strength (kN/m)	10.3	10.0	9.8	9.6	9.4	9.2	9.1	9.0	8.8	
		Stiffness, G',(10 ³ N/mm)	2.7	3.0	3.3	3.5	3.8	4.1	4.3	4.5	4.8	
	230	Strength (kN/m)	11.2	11.0	10.8	10.6	10.5	10.3	10.2	10.1	10.0	
		Stiffness, G',(10 ³ N/mm)	2.7	3.0	3.3	3.6	3.9	4.1	4.4	4.6	4.9	
	150	Strength (kN/m)	12.7	12.5	12.4	12.3	12.2	12.1	12.1	12.0	12.0	
		Stiffness, G',(10 ³ N/mm)	2.8	3.1	3.4	3.7	3.9	4.2	4.5	4.8	5.0	
	914/7	900	Strength (kN/m)	13.3	12.4	11.7	11.0	10.5	10.0	9.6	9.2	8.9
			Stiffness, G',(10 ³ N/mm)	11.5	11.8	12.1	12.2	12.3	12.3	12.4	12.4	12.4
600		Strength (kN/m)	15.0	14.2	13.5	12.9	12.4	12.0	11.6	11.3	11.0	
		Stiffness, G',(10 ³ N/mm)	12.0	12.4	12.7	13.0	13.2	13.3	13.5	13.5	13.6	
300		Strength (kN/m)	19.6	18.9	18.3	17.9	17.4	17.1	16.8	16.5	16.3	
		Stiffness, G',(10 ³ N/mm)	13.0	13.6	14.2	14.6	15.0	15.4	15.7	16.0	16.2	
230		Strength (kN/m)	21.9	21.3	20.8	20.4	20.0	19.7	19.5	19.2	19.0	
		Stiffness, G',(10 ³ N/mm)	13.4	14.1	14.8	15.3	15.8	16.2	16.6	17.0	17.3	
150		Strength (kN/m)	26.0	25.6	25.2	24.9	24.7	24.5	24.3	24.1	24.0	
		Stiffness, G',(10 ³ N/mm)	14.1	14.9	15.7	16.4	17.0	17.6	18.1	18.5	18.9	
914/9		900	Strength (kN/m)	18.6	17.3	16.1	15.2	14.3	13.5	12.8	12.2	11.7
			Stiffness, G',(10 ³ N/mm)	12.5	13.0	13.3	13.5	13.6	13.7	13.8	13.8	13.8
	600	Strength (kN/m)	20.2	18.9	17.8	16.9	16.1	15.5	14.9	14.4	13.8	
		Stiffness, G',(10 ³ N/mm)	12.8	13.3	13.7	14.1	14.3	14.5	14.6	14.7	14.8	
	300	Strength (kN/m)	24.4	23.3	22.4	21.6	21.0	20.4	19.9	19.5	19.1	
		Stiffness, G',(10 ³ N/mm)	13.5	14.2	14.8	15.3	15.7	16.1	16.4	16.7	17.0	
	230	Strength (kN/m)	26.5	25.6	24.8	24.1	23.5	23.0	22.6	22.2	21.8	
		Stiffness, G',(10 ³ N/mm)	13.8	14.6	15.3	15.8	16.3	16.8	17.2	17.5	17.9	
	150	Strength (kN/m)	30.4	29.8	29.2	28.7	28.3	27.9	27.6	27.3	27.0	
		Stiffness, G',(10 ³ N/mm)	14.4	15.2	16.0	16.7	17.3	17.9	18.4	18.9	19.3	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range 3 mm to less than 5 mm.

38 mm deck - 914 mm wide - 152 mm flute spacing

Thickness = 1.21 mm

Support connection: X-EDNK22, X-HSN 24

Limit States Design - FACTORED RESISTANCE

Side-lap connection: Hilti SLC

$\Phi = 0.60$

ICC-ES AC43/SDI METHOD - METRIC

Support Connection Pattern	Sidelap Spacing (mm)		Span (mm)									
			1500	1650	1800	1950	2100	2250	2400	2550	2700	
914/4	900	Strength (kN/m)	8.7	8.3	7.9	7.6	7.3	7.1	6.9	6.7	6.5	
		Stiffness, $G', (10^3 \text{ N/mm})$	5.5	5.9	6.2	6.4	6.7	6.9	7.1	7.3	7.5	
	600	Strength (kN/m)	9.9	9.5	9.2	8.9	8.7	8.4	8.2	8.1	7.9	
		Stiffness, $G', (10^3 \text{ N/mm})$	5.7	6.1	6.5	6.8	7.1	7.4	7.6	7.9	8.1	
	300	Strength (kN/m)	12.8	12.6	12.3	12.1	11.9	11.8	11.6	11.5	11.4	
		Stiffness, $G', (10^3 \text{ N/mm})$	6.1	6.5	7.0	7.4	7.8	8.1	8.5	8.8	9.2	
	230	Strength (kN/m)	14.2	14.0	13.8	13.6	13.5	13.3	13.2	13.1	13.0	
		Stiffness, $G', (10^3 \text{ N/mm})$	6.2	6.7	7.1	7.6	8.0	8.4	8.8	9.2	9.5	
	150	Strength (kN/m)	16.3	16.2	16.0	15.9	15.9	15.8	15.7	15.7	15.6	
		Stiffness, $G', (10^3 \text{ N/mm})$	6.4	6.9	7.4	7.9	8.3	8.8	9.2	9.6	10.0	
	914/7	900	Strength (kN/m)	13.5	12.8	12.3	11.9	11.5	11.1	10.8	10.5	10.3
			Stiffness, $G', (10^3 \text{ N/mm})$	17.3	17.3	17.2	17.0	16.9	16.7	16.5	16.4	16.2
600		Strength (kN/m)	15.9	15.3	14.8	14.4	14.0	13.7	13.4	13.2	12.9	
		Stiffness, $G', (10^3 \text{ N/mm})$	18.6	18.7	18.7	18.7	18.7	18.6	18.5	18.5	18.4	
300		Strength (kN/m)	22.0	21.5	21.2	20.8	20.6	20.3	20.1	19.9	19.7	
		Stiffness, $G', (10^3 \text{ N/mm})$	21.3	21.7	22.1	22.3	22.5	22.7	22.9	23.0	23.2	
230		Strength (kN/m)	24.8	24.5	24.2	23.9	23.7	23.5	23.3	23.1	23.0	
		Stiffness, $G', (10^3 \text{ N/mm})$	22.5	23.1	23.5	23.9	24.2	24.5	24.8	25.0	25.2	
150		Strength (kN/m)	29.5	29.3	29.1	28.9	28.8	28.7	28.6	28.5	28.4	
		Stiffness, $G', (10^3 \text{ N/mm})$	24.5	25.2	25.8	26.4	26.9	27.4	27.8	28.1	28.5	
914/9		900	Strength (kN/m)	18.1	17.1	16.3	15.6	14.9	14.4	13.8	13.3	12.9
			Stiffness, $G', (10^3 \text{ N/mm})$	19.6	19.6	19.5	19.4	19.2	19.1	18.9	18.7	18.5
	600	Strength (kN/m)	20.3	19.4	18.7	18.0	17.4	16.9	16.4	16.0	15.7	
		Stiffness, $G', (10^3 \text{ N/mm})$	20.5	20.6	20.7	20.7	20.7	20.6	20.5	20.4	20.4	
	300	Strength (kN/m)	26.1	25.4	24.8	24.3	23.8	23.4	23.1	22.8	22.5	
		Stiffness, $G', (10^3 \text{ N/mm})$	22.6	43.5	42.8	42.3	42.0	41.6	41.4	41.2	41.0	
	230	Strength (kN/m)	29.0	28.4	27.9	27.4	27.0	26.7	26.4	26.1	25.8	
		Stiffness, $G', (10^3 \text{ N/mm})$	23.5	24.1	24.5	24.9	25.2	25.5	25.8	26.0	26.2	
	150	Strength (kN/m)	33.8	33.4	33.1	32.8	32.5	32.3	32.1	31.9	31.7	
		Stiffness, $G', (10^3 \text{ N/mm})$	25.1	25.9	26.5	27.1	27.6	28.0	28.4	28.8	29.1	

1. Calculated in accordance with SDI DDM equations using specific Hilti fastener strength and stiffness values with data correlation adjustment factors in accordance with ICC-ES AC43 requirements.
2. Load values based upon attachment to base steel thickness in the range 3 mm to less than 5 mm.