

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

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 and in the range of 5 mm to 10mm for X-EDN19 fasteners.

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

Thickness = 0.91 mm

Support connection: Hilti X-EDN19, X-EDNK22

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 and in the range of 5 mm to 10mm for X-EDN19 fasteners.

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

Thickness = 1.21 mm

Support connection: Hilti X-EDN19, X-EDNK22

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 and in the range of 5 mm to 10mm for X-EDN19 fasteners.

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

Thickness = 0.76 mm

Support connection: X-EDNK22

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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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

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, $G', (10^3 \text{ N/mm})$	2.6	2.8	3.1	3.3	3.5	3.7	3.9	4.1	4.3	
	600	Strength (kN/m)	8.3	7.9	7.5	7.3	7.0	6.8	6.6	6.4	6.3	
		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)	10.3	10.0	9.8	9.6	9.4	9.2	9.1	9.0	8.8	
		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)	11.2	11.0	10.8	10.6	10.5	10.3	10.2	10.1	10.0	
		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)	12.7	12.5	12.4	12.3	12.2	12.1	12.1	12.0	12.0	
		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)	13.3	12.4	11.7	11.0	10.5	10.0	9.6	9.2	8.9
			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)	15.0	14.2	13.5	12.9	12.4	12.0	11.6	11.3	11.0	
		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)	19.6	18.9	18.3	17.9	17.4	17.1	16.8	16.5	16.3	
		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)	21.9	21.3	20.8	20.4	20.0	19.7	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)	26.0	25.6	25.2	24.9	24.7	24.5	24.3	24.1	24.0	
		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)	18.6	17.3	16.1	15.2	14.3	13.5	12.8	12.2	11.7
			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)	20.2	18.9	17.8	16.9	16.1	15.5	14.9	14.4	13.8	
		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)	24.4	23.3	22.4	21.6	21.0	20.4	19.9	19.5	19.1	
		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)	26.5	25.6	24.8	24.1	23.5	23.0	22.6	22.2	21.8	
		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)	30.4	29.8	29.2	28.7	28.3	27.9	27.6	27.3	27.0	
		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 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

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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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.