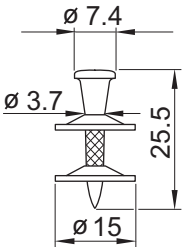
X-ENP 2K Siding and Decking Nail

Product data

Dimensions



General information

Material specifications

Carbon steel shank:	HRC 55.5
Zinc coating:	8–16 µm

Fastening tools

DX 76 PTR with X-76-F15-PTR fastener guide	Single nail: X-ENP 2K-20 L15
DX 76 PTR	Collated nails: X-ENP 2K-20 L15 MX (green magazine strip)

See fastener selection for more details.

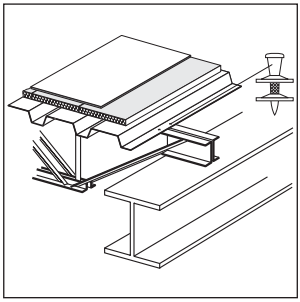
Approvals

CSTB (France), BUtgb (Belgium)

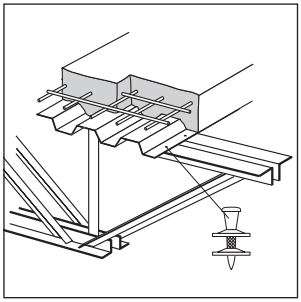
Note: technical data presented in these approvals and design guidelines reflect specific local conditions and may differ from those published in this handbook.

Applications

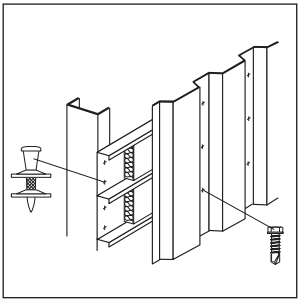
Examples



Roof and floor decking



Roof and floor decking



Wall liners

Load data

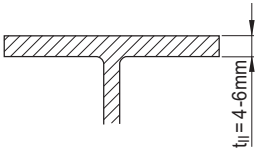
Recommended loads

Sheeting thickness t_I [mm] nominal	minimum	Trapezoidal profile (symmetric N_{rec} [kN]	V_{rec} [kN]	Liner trays (asymmetric) N_{rec} [kN]	V_{rec} [kN]
0.63	—	1.20	1.40	—	—
0.75	0.65	1.80	1.70	1.25	1.20
0.88	0.77	2.10	2.00	1.50	1.40
1.00	0.89	2.70	2.20	1.90	1.55
1.13	1.02	3.00	2.60	2.10	1.80
1.25	1.13	3.00	3.00	2.10	2.10
1.50	1.36	3.00	3.00	2.10	2.10
1.75	1.60	3.00	3.00	2.10	2.10
2.00	1.84	3.00	3.00	2.10	2.10

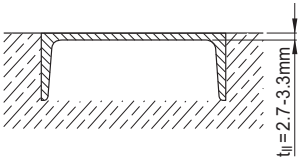
- Recommended working loads valid for steel sheet minimum tensile strength ≥ 360 N/mm².
- For intermediate sheet thicknesses, use recommended load for next smaller thickness.
- Recommended loads include safety factor ≥ 2.0 applied to characteristic loads N_{Rk} and V_{Rk} and are appropriate for EC 1 (or similar) wind loading designs.
- For steel thickness, t_{II} **= 3–4 mm**, reduce all recommended loads to **0.9 kN**.

Application requirements

Thickness of base material



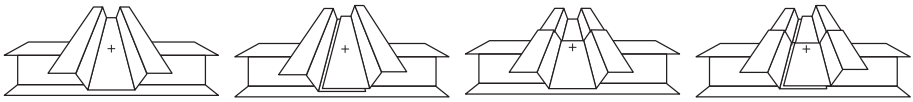
t_{II} = 4.0–6.0 mm for general shapes



t_{II} = 2.7–3.3 mm for concrete inlays

Thickness of fastened material

Sheet thicknesses and overlap types



(a) single

(b) side lap

(c) end overlap

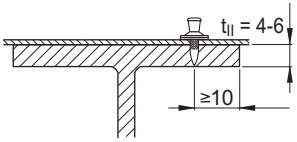
(d) side lap and end overlap

Nominal sheeting thickness t_I [mm]	Overlap types t_{II} = 3–4 mm	t_{II} ≥ 4 mm
0.75	a, b, c, d	a, b, c, d
> 0.75–1.00	a, c	a, b, c, d

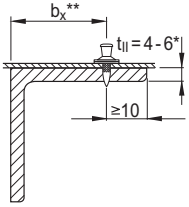
- The recommendations apply if the supporting structure is sufficiently flexible so that forces of constraint from temperature differentials can be neglected.
- These recommendations are valid for sheets up to S350GD.

Spacing and edge distances (mm)

Rolled I or wide flange shapes

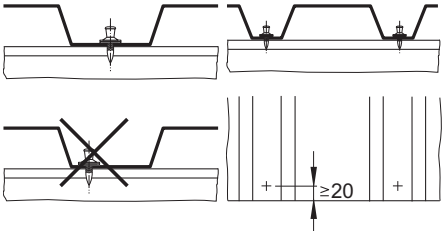


Angles



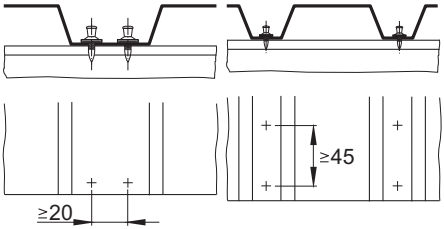
* For t_{II} = 3 to 4 mm, restrictions on application. See approval or contact Hilti.
** Maximum recommended $b_x \leq 8 \times t_{II}$ however, jobsite verification advisable.

Trapezoidal profiles



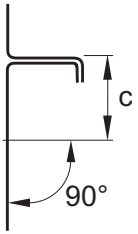
Centre fastenings in ribs

Clearance to end of sheet

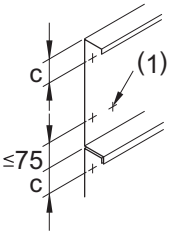


Double fastenings
Note:
Reduce tensile resistance per fastener to 0.7 N_{rec}.

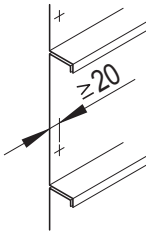
Liner trays



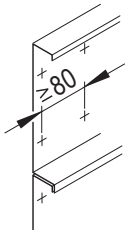
Clearance to side of sheet



Clearance to side of sheet



Clearance to end of sheet



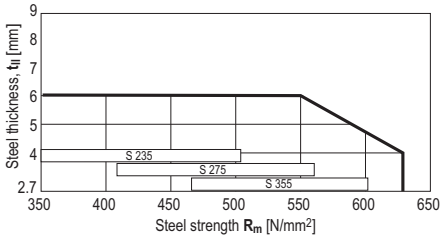
Fastener spacing along sheet

When driving the fastener, the fastening tool needs to be positioned perpendicular to the surface.
If c > 75 mm, it is recommended to drive an additional fastener at the other side of the tray. This additional fastener is indicated with (1) in the graph above.

Corrosion information

The intended use only comprises fastenings which are not directly exposed to external weather conditions or moist atmospheres. For further detailed information on corrosion see corresponding chapter in **Direct Fastening Principles and Technique** section.

Application limits

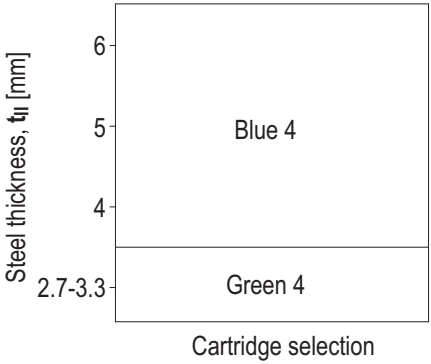


Fastener selection and system recommendation

Fasteners	Designation	Item no.	Tools Designation	Fastener guide Designation
Single nail:	X-ENP 2K-20 L15	385133	DX 76 PTR	X-76-F15-PTR
Collated nails:	X-ENP 2K-20 L15 MX	385134	DX 76 PTR	
Piston:	X-76-P-ENP2K-PTR		DX 76 PTR	

Cartridge selection and tool energy setting

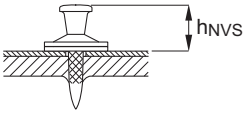
DX 76 PTR



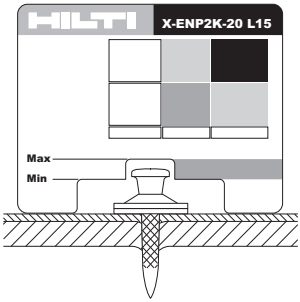
Fine adjustment by installation tests on site.

Fastening quality assurance

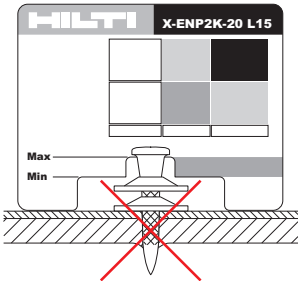
Fastening inspection



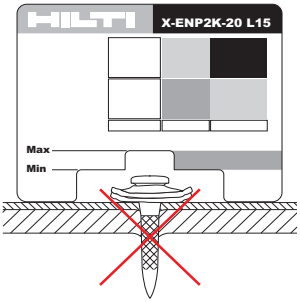
h_{NVS} = 7–11 mm



h_{NVS} = 7–11 mm



h_{NVS} > 11 mm



h_{NVS} < 7 mm