

Eurocode 011390 (single shot) - P560 & P230
 Eurocode 053953 (collated) - P560
 Eurocode 011391 (in tube) - P525L

Description

→ Cladding panels / roofing

Material properties

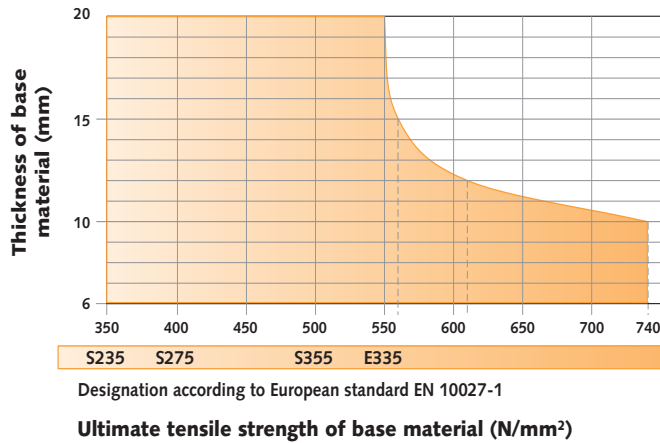
The HSBR 14 nails are composed of :

- **Carbon steel shank**
 - Ultimate tensile strength : 2300 N/mm²
 - Yield strength : 1600 N/mm²
 - Mechanical zinc plating, min zinc coating 10 µm
- **Steel washer**
 - Min zinc coating 8 µm
 - Electrogalvanised
 - The washer is designed to give effective clamping force

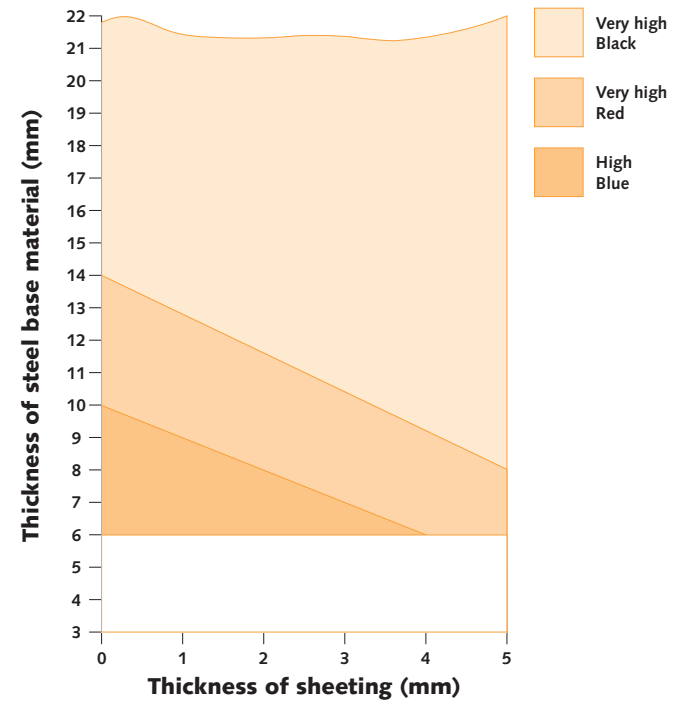
Tools

P560 - P230 - P525L

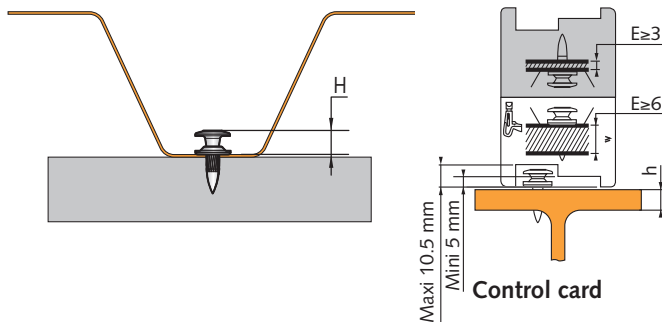
Application limit



Power setting



Fixing control



Thickness of base material	H _{min} ⁽¹⁾ (mm)	H _{max} ⁽¹⁾ (mm)
h ≥ 6 mm	5	10.5

⁽¹⁾ Values obtained with 0.75 mm steel sheet.

→ Base material :

Resistance of base material S235 and with a thickness higher than 6mm.

According to European Technical Approval ETA N° 08/0040
→ Steel sheets and style of anchoring :

1 Sheet

2 Sheets

2 Sheets

4 Sheets

Sheet thickness (mm)	Characteristic loads [kN]		Design loads [kN]		Recommended loads [kN]		Style of anchoring
	Shear	Tensile	Shear	Tensile	Shear	Tensile	
	V_{Rk}	N_{Rk}	V_{Rd}	N_{Rd}	V_{Rec}	N_{Rec}	
0.63	4.2	5.3	3.4	4.2	2.2	2.8	A B C D
0.75	5.8	6.6	4.6	5.3	3.1	3.5	A B C D
0.88	7.7	7.7	6.2	6.2	4.1	4.1	A B C D
1.00	8.6	8.2	6.9	6.6	4.6	4.4	A B C D
1.13	9.1	9.1	7.3	7.3	4.9	4.9	A
1.25	9.5	9.5	7.6	7.6	5.1	5.1	A
1.50	10.0	10.1	8.0	8.1	5.3	5.4	A
1.75	10.0	10.3	8.0	8.2	5.3	5.5	A
2.00	10.0	10.4	8.0	8.3	5.3	5.5	A
2.50	10.0	10.5	8.0	8.4	5.3	5.6	A

 $V_{Rd} = V_{Rk} / \gamma_M$: the design load is calculated from the characteristic load and a partial safety factor $\gamma_M = 1.25$.

 $N_{Rd} = \alpha_{cycl} \times N_{Rk} / \gamma_M$: the design load is calculated from the characteristic load and a partial safety factor $\gamma_M = 1.25$ and $\alpha_{cycl} = 1$.

 For the calculation of the recommended load, we applied the partial safety factor $\gamma_F = 1.5$.