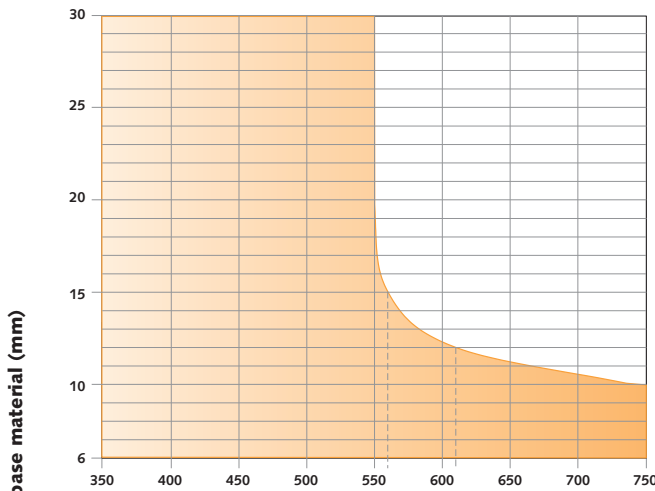


code 011391 (in tube) / code 011390 (in bulk) / code 053953 (in strip)

APPLICATION LIMIT

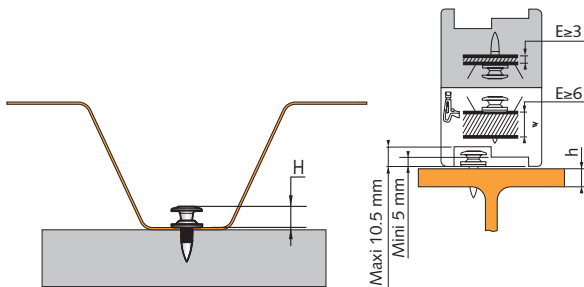


(1) E24	E28	E36	A60
(2) ST37	ST44	ST52	ST60
(3) S235	S275	S355	E335

(1) French designation - (2) German designation
(3) Designation according to European standard NF EN 10027-1

Ultimate tensile strength of base material (N/mm²)

CONTROL FIXING



Control card

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.

DESCRIPTION

→ Steel to Steel cladding panels and roof decks

PROPERTIES MATERIAL

The HSBR14 pin is composed of:

→ Shank in carbon steel

- Ultimate tensile strength: 2300 N/mm²
- Yield strength: 1600 N/mm²
- Mechanical zinc plating, min zinc coating 10 μm
- Hardness > 57 HRc

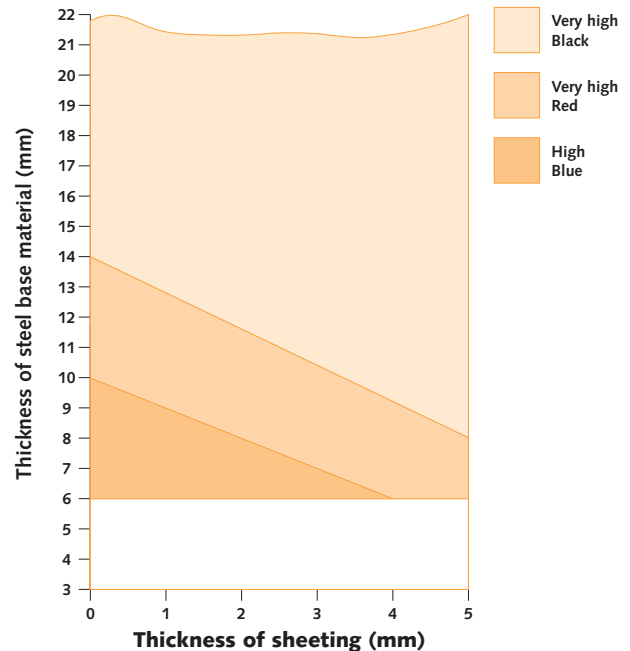
→ One steel washer

- Min zinc coating 8 μm
- Electrogalvanizing
- The plate washer developed for a good clamping of the plates to avoid damages when shooting.

TOOL

P560

POWER SETTING



HSBR14 range	Length	Quantity	Euro code
HSBR14 Strip	14	1000 pcs	053953
HSBR14 Tube	14	1000 pcs	011391
HSBR14 Loose	14	1000 pcs	011390



→ Base material:

Resistance of base material S235 (E24) and with a thickness higher than 6mm according to the field of application given in the first page.

ACCORDING TO EUROPEAN TECHNICAL ASSESSMENT ETA N° 08/0040



→ Sheetings and type of connections:



1 sheeting



2 sheetings



2 Sheetings



4 sheetings

Sheeting thickness (mm)	Characteristic loads [kN]		Design loads [kN]		Recommended loads [kN]		Connection type
	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 $\gamma_F = 1.5$. The recommended loads N_{rec} and V_{rec} are appropriate for Eurocode 1 wind loading design with a partial safety factor $\gamma_F = 1.5$ for wind load and a partial resistance factor $\gamma_N = 1.25$ for fastening.

Powder pins