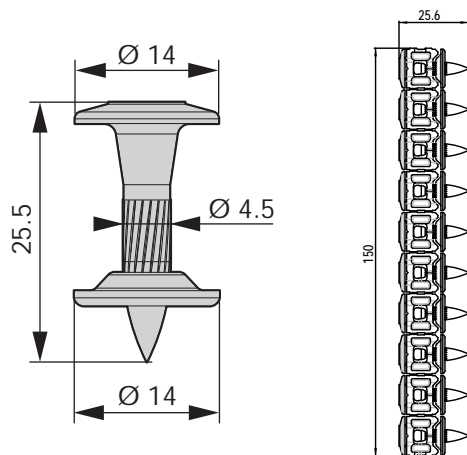
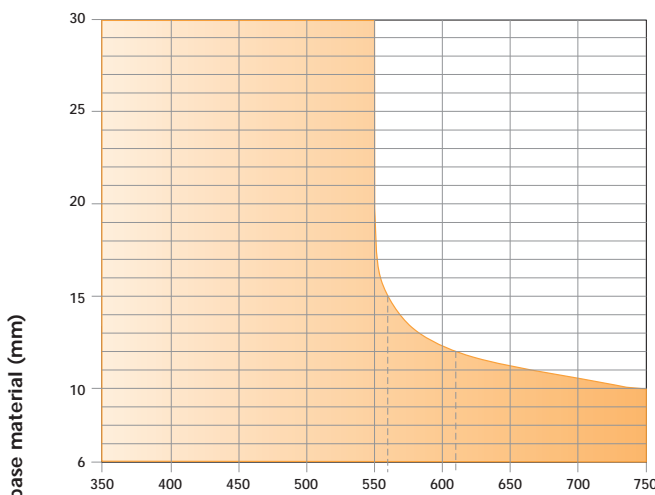


# SPIT HSBR14



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

## APPLICATION LIMIT

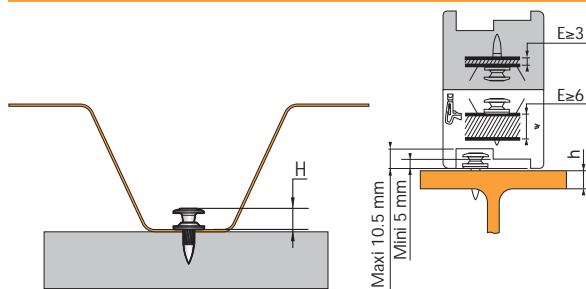


(1) E24	E28	E36	A60
(2) ST37	ST44	ST52	ST60
(3) S235	S275	S355	E335

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

Ultimate tensile strength of base material (N/mm<sup>2</sup>)

## CONTROL FIXING



Control card

Thickness of base material	H <sub>min</sub> <sup>(1)</sup> (mm)	H <sub>max</sub> <sup>(1)</sup> (mm)
h ≥ 6 mm	5	10.5

(1) Values obtained with 0.75 mm steel sheet.

## DESCRIPTION

→ Cladding panels, roofing

## PROPERTIES MATERIAL

The HSBR14 nails is composed of :

### → Shank in carbon steel

- Ultimate tensile strength : 2300 N/mm<sup>2</sup>
- Yield strength : 1600 N/mm<sup>2</sup>
- Mechanical zinc plating, min zinc coating 10 µm
- Hardness > 57 HRc

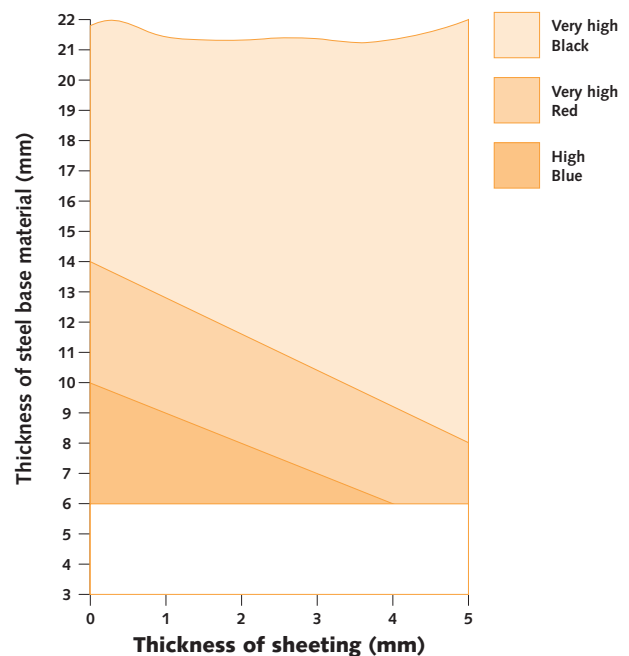
### → One steel washer

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

## TOOLS

P560 – P230 – P525L

## POWER SETTING





## → 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 APPROVAL 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.