

S-MD 35 PS stainless steel self-drilling screw

Product data

General information

Material specification:

made from A2 (AISI 304) material, with hardened carbon steel drill point and thread start, with fitted EPDM sealing washer \varnothing 12 mm. Coloured screws available on request.

Fastening tools:

Screwdriver: Hilti ST 1800
Hilti ST2500

Drive using depth gauge set:

Bit S-B TX25W: Item no. 304611

Approvals:

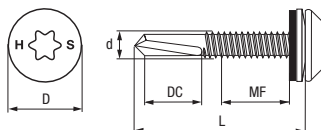


Dimensions

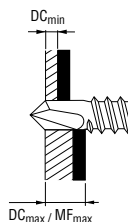
Uses:

Fastening profiled corrugated sheet metal with a thick, hot-rolled steel beams, with or without intermediate insulation layers.

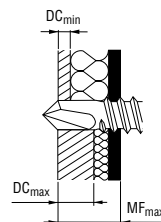
For corrosion-resistant and watertight joints.



without insulation

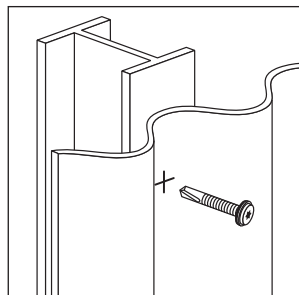


with insulation



Applications

Examples



Load data
Design data
Drilling capacity Σt

max. 12.5 mm

Screw in end-stop oriented

Component II steel with t_{II} [mm]
 S235 (DIN EN 10025-1)
 S280GD up to S350GD (DIN EN 10326)

4.0 5.0 6.0 8.0 10.0

Component I

 steel with t_I [mm]

 S280GD up to S350GD
 (DIN EN 10326)

Shear force $V_{R,k}$ [kN]

0.63	2.69	2.93	3.16	3.16	3.16
0.75	2.95	3.11	3.27	3.27	3.27
0.88	3.46	3.73	4.01	4.01	4.01
1.00	3.97	4.36	4.74	4.74	4.74
1.13	4.97	5.16	5.35	5.35	5.35
1.25	5.97	5.97	5.97	5.97	5.97
1.50	5.97	6.23	6.49	6.49	6.49
1.75	5.97	6.33	6.69	6.69	6.69
2.00	5.97	6.43	6.89	6.89	6.89

Tension force $N_{R,k}$ [kN]

0.63	2.34	2.34	2.34	2.34	2.34
0.75	2.34	2.34	2.34	2.34	2.34
0.88	2.34	2.34	2.34	2.34	2.34
1.00	2.34	2.34	2.34	2.34	2.34
1.13	2.34	2.34	2.34	2.34	2.34
1.25	2.34	2.34	2.34	2.34	2.34
1.50	2.34	2.34	2.34	2.34	2.34
1.75	2.34	2.34	2.34	2.34	2.34
2.00	2.34	2.34	2.34	2.34	2.34

Screw in end-stop oriented

Component II steel with t_{II} [mm]					
S235 (DIN EN 10025-1)					
S280GD up to S350GD (DIN EN 10326)					
4.0	5.0	6.0	8.0	10.0	

Component I					
aluminium t_I [mm]					
Profil sheeting with R_m					
$\geq 185 \text{ N/mm}^2$ according to					
DIN EN 485-2:2004-09					
	Shear force $V_{R,k}$ [kN]				
0.50	1.03	1.03	1.03	1.03	1.03
0.60	1.27	1.27	1.27	1.27	1.27
0.70	1.51	1.51	1.51	1.51	1.51
0.80	1.79	1.79	1.79	1.79	1.79
0.90	2.07	2.07	2.07	2.07	2.07
1.00	2.35	2.35	2.35	2.35	2.35
1.10	2.35	2.35	2.35	2.35	2.35
1.20	2.35	2.35	2.35	2.35	2.35
1.30	2.35	2.35	2.35	2.35	2.35
1.40	2.35	2.35	2.35	2.35	2.35
1.50	2.35	2.35	2.35	2.35	2.35
	Tension force $N_{R,k}$ [kN]				
0.50	0.61	0.61	0.61	0.61	0.61
0.60	0.70	0.70	0.70	0.70	0.70
0.70	0.83	0.83	0.83	0.83	0.83
0.80	0.99	0.99	0.99	0.99	0.99
0.90	1.19	1.19	1.19	1.19	1.19
1.00	1.42	1.42	1.42	1.42	1.42
1.10	1.70	1.70	1.70	1.70	1.70
1.20	2.02	2.02	2.02	2.02	2.02
1.30	2.02	2.02	2.02	2.02	2.02
1.40	2.02	2.02	2.02	2.02	2.02
1.50	2.02	2.02	2.02	2.02	2.02

Safety factors according to EN 1993-1-3 and CUAP 06.02/07

	Tension	Shear
Partial safety concept		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{\text{cyclic}} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
Global safety concept		
Global safety factor *	$\gamma_{\text{GLOB}} = 2.0$	$\gamma_{\text{GLOB}} = 2.0$
Recommended load	$N_{\text{rec}} = 1.0 \cdot N_{Rk} / 2.0$	$V_{\text{rec}} = V_{Rk} / 2.0$

* Note: The global safety factor of 2.0 includes a partial safety factor of $\gamma_F = 1.5$ for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

Screw selection
Screw program

Drilling thickness DC mm	Fastening thickness MF max. mm	Dimensions (dxL) mm	Sealing washer \varnothing mm	Drive dimensions	Package contents	Ordering designation	Item no.
4.6-12	12	5.5x45	12	TX 25	250	S-MD35PS 5.5x45	202431