TECHNICAL DATA SHEET

T6 R16

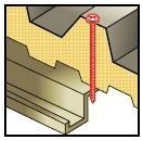
SELF-DRILLING SCREWS WITH A WASHER FOR SANDWICH PANELS FIXING

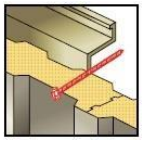
PRODUCT DESCRIPTION

Self-drilling, self-tapping screws (double thread) made of surface-hardened carbon steel, drilling point #3, with fine thread and hex head, with integrated steel washer with vulcanized EPDM.

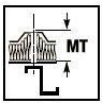
APPLICATION

Designed for mounting sandwich panels to cold rolled steel structures. Protected with paint coating - polyester with a thickness of not less than 50 µm, designed for use in environments with corrosivity categories C1, C2 and C3 according to PN-EN ISO 12944-2: 2001. Zinc coated fasteners without paint coating are designed for use in environments with corrosivity categories C1, C2





LENGTH OF SCREWS

Fastener type		Dimensions D x L [mm]	Maximum drill capacity [mm]	Maximum thickness of fixed elements [mm] 	
			DC	MTmin	MTmax
T6	R16	5,5/6,3 x 66	6,00	25	45
T6	R16	5,5/6,3 x 75	6,00	30	55
T6	R16	5,5/6,3 x 90	6,00	45	70
T6	R16	5,5/6,3 x 105	6,00	60	85
T6	R16	5,5/6,3 x 120	6,00	70	100
T6	R16	5,5/6,3 x 130	6,00	85	110
T6	R16	5,5/6,3 x 150	6,00	90	130
T6	R16	5,5/6,3 x 175	6,00	110	155
T6	R16	5,5/6,3 x 200	6,00	140	180
T6	R16	5,5/6,3 x 230	6,00	180	210

The working length of the fastener is calculated from the maximum thickness of the DC substrate.

CHARACTERISTIC CAPACITIES OF SHEAR ATTACHMENTS AND PULL-OUT FROM STEEL SUBSTRATE, DISPLACEMENT OF THE SCREW HEAD DUE TO HEAT EXPANSION

Element II: t_{II} w [mm]			1,00	1,50	2,00	2,50	3,00	4,00	≥ 5,00
Element I: $t_{n,1}$ lub $t_{n,2w}$ [mm]	SHEAR $V_{R,k}$ w [kN]	0,50	1,40	1,40	1,40	1,40	1,40	1,40	1,40
		0,55	1,40	1,40	1,40	1,40	1,40	1,40	1,40
		0,63	1,60	1,60	1,60	1,60	1,60	1,60	1,60
		0,75	2,10	2,10	2,10	2,10	2,10	2,10	2,10
		0,88	2,10	2,10	2,10	2,10	2,10	2,10	2,10
		1,00	2,10	2,10	2,10	2,10	2,10	2,10	2,10
	PULL-OUT $N_{R,k}$ w [kN]	0,50	1,10	1,93	3,45	3,45	3,45	3,45	3,45
		0,55	1,10	1,93	3,45	3,45	3,45	3,45	3,45
		0,63	1,10	1,93	3,45	3,45	3,45	3,45	3,45
		0,75	1,10	1,93	3,45	3,45	3,45	3,45	3,45
		0,88	1,10	1,93	3,45	3,45	3,45	3,45	3,45
		1,00	1,10	1,93	3,45	3,45	3,45	3,45	3,45
Max. head displacement u* depending on the sandwich panel thickness in [mm]			1	12	12	12	12	1,5	1,5
		40	1	12	12	12	12	1,5	1,5
		50	1	12	12	12	12	1,5	1,5
		60	2,5	18	18	18	18	4	4
		70	2,5	18	18	18	18	4	4
		80	2,5	18	18	18	18	4	4
		90	4	23	23	23	23	10	10
		100	4	23	23	23	23	10	10
		120	4	23	23	23	23	10	10
		≥140	4	23	23	23	23	10	10

Element I - sheet steel of S280GD grade; S320GD; S350GD according to EN 10346.
Element II - steel sheet steel of grade S235 according to EN 10025-1 or S280GD; S320GD; S350GD according to EN 10346.
In order to determine the design load, the characteristic load factor must be divided by the safety factor γm = 1.33.

CHARACTERISTIC CAPACITIES OF SHEAR ATTACHMENTS AND PULL-OUT FROM STEEL SUBSTRATE, DISPLACEMENT OF THE SCREW HEAD DUE TO HEAT EXPANSION

Element II: t_{II} w [mm]			1,00	1,50	2,00	2,50	3,00	4,00	≥ 5,00
Element I: $t_{n,1}$ lub $t_{n,2w}$ [mm]	SHEAR $V_{R,k}$ w [kN]	0,50	1,40	1,40	1,40	1,40	1,40	1,40	1,40
		0,55	1,40	1,40	1,40	1,40	1,40	1,40	1,40
		0,63	1,60	1,60	1,60	1,60	1,60	1,60	1,60
		0,75	2,10	2,10	2,10	2,10	2,10	2,10	2,10
		0,88	2,10	2,10	2,10	2,10	2,10	2,10	2,10
		1,00	2,10	2,10	2,10	2,10	2,10	2,10	2,10
	PULL-OUT $N_{R.k}$ w [kN]	0,50	1,10	1,93	3,45	3,45	3,45	3,45	3,45
		0,55	1,10	1,93	3,45	3,45	3,45	3,45	3,45
		0,63	1,10	1,93	3,45	3,45	3,45	3,45	3,45
		0,75	1,10	1,93	3,45	3,45	3,45	3,45	3,45
		0,88	1,10	1,93	3,45	3,45	3,45	3,45	3,45
		1,00	1,10	1,93	3,45	3,45	3,45	3,45	3,45
Max. head displacement u* depending on the sandwich panel thickness in [mm]		30	12	12	12	12	1,5	1,5	1,5
		40	12	12	12	12	1,5	1,5	1,5
		50	12	12	12	12	1,5	1,5	1,5
		60	18	18	18	18	4	4	4
		70	18	18	18	18	4	4	4
		80	18	18	18	18	4	4	4
		90	23	23	23	23	10	10	10
		100	23	23	23	23	10	10	10
		120	23	23	23	23	10	10	10
		≥140	23	23	23	23	10	10	10

Element I – steel plate s280gd; s320gd; s350gd accordingto: en 10346.
Element II – steel plate s235 according to: en 10025-1lorsteel plate s280gd; s320gd; s350gd accordingto: en 10346.
To define a design load should divide the value of the characteristic load by a safety factor γm = 1,33.

OTHER FEATURES

BASE MATERIAL:	*COLD-ROLLED STEEL PROFILE*
SIZE OF HEX HEAD:	*8 mm*
MINIMUM THICKNESS OF STEEL BASE:	*1,0 mm*
MAXIMUM DRILLING CAPACITY:	*6,0 mm*
THICKNESS OF THE ZINC COATING:	*12 µm*
CORROSIVITY CATEGORY:	*PAINTED - C3* *NOT PAINTED - C2*
TECHNICAL OPINION ON CORROSION PROTECTION:	*02248/16/Z00NZM*
PAINTING POSSIBILITY:	*YES*
THICKNESS OF POLYESTER PAINT:	*50 µm*
TIGHTENING TORQUE:	*5 Nm*
RECOMMENDED SPEED OF THE TOOL WITHOUT LOAD:	*1500 rpm*
WASHER DIAMETER (STEEL R16):	*16 mm*

ETA DWU/DoP KDWU ZKP TC POCC SZU