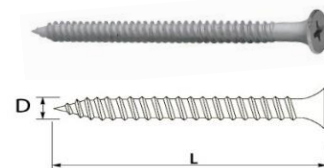


## GTS-S

### SELF-TAPPING INSULATION SCREWS



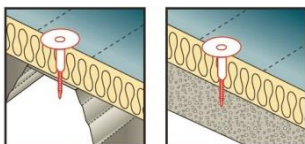
#### PRODUCT DESCRIPTION

Screws made of surface-hardened carbon steel, with a drilling tip, fine thread, and bugle head with TX25 slot. Covered with an additional gRey.coat corrosion protection coat.

#### APPLICATION

Designed for fastening insulation materials in applications of flat roofs in combination with plastic tube for corrugated structural steel sheet (max 2 x 0,88 mm). In combination with expansion sleeve for concrete construction.

Designed for use in environments with atmospheric corrosivity categories C1, C2, C3, C4 according to PN-EN ISO 12944-2: 2001 standards.



#### LENGTH OF SCREWS

Fastener type	Dimensions of fasteners D x L [mm]
GTS-S	4,8 x 50
GTS-S	4,8 x 60
GTS-S	4,8 x 70
GTS-S	4,8 x 80
GTS-S	4,8 x 90
GTS-S	4,8 x 100
GTS-S	4,8 x 110
GTS-S	4,8 x 120
GTS-S	4,8 x 130
GTS-S	4,8 x 140
GTS-S	4,8 x 150
GTS-S	4,8 x 160
GTS-S	4,8 x 170
GTS-S	4,8 x 180
GTS-S	4,8 x 200
GTS-S	4,8 x 220
GTS-S	4,8 x 240
GTS-S	4,8 x 260
GTS-S	4,8 x 280
GTS-S	4,8 x 300

## NATIONAL TECHNICAL ASSESSMENT ITB-KOT-2018/0706

### CHARACTERISTIC AND COMPUTATIONAL LOAD CAPACITY ON AXIAL PULL-OUT FROM THE SUBSTRATE [kN] BY AT-15-9718/2016:

Fastener type	Sleeve or washer	Substrate	Anchorage depth [mm]	Hole diameter [mm]	Characteristic bearing capacity [kN]	Design load capacity [kN]
GTS-S + UZK	G	Concrete class min. C12/15*	60 (in the case of 50-60 mm thick channel plates - through assembly)	7,5	1,13	0,57
	DVP					
GTS-S	G	Wood class min. C24*	20,0	-	1,57	0,79
	DVP					
	G	OSB* th. 18 [mm] p> 625 [kg/m <sup>3</sup> ]	18,0 (Through assembly)	-	1,57	0,79
	DVP					
	G	Fibrous-cement board * (gr. 5,0 [mm])	5,0 (Through assembly)	4,0	0,77	0,58
	DVP					

Concrete according to the norm PN-EN 206:2014

Wood according to the norm PN-EN 14081-1+A1:2011

OSB according to the norm PN-EN 300:2007

Fibrous-cement board according to the norm PN-EN 494+A3:2009

## EUROPEAN TECHNICAL APPROVAL ETA-12/0149

### CHARACTERISTIC LOAD CAPACITY OF PULL-OUT RESISTANCE

Characteristic load bearing capacity of pull-out resistance [kN]								
Fastener	Washer	Substrate						
		Steel sheet S280GD acc. to EN 10346						
		t ≥ 0,50 mm	t ≥ 0,63 mm	t ≥ 0,70 mm	t ≥ 0,75 mm	t ≥ 0,88 mm	t ≥ 1,00 mm	t ≥ 1,25 mm
GTS-S 4,8xL	G1, G2	0,72	0,97	0,97	1,13	1,18	1,18	1,18
	DVP	0,72	0,97	0,97	1,13	1,18	1,18	1,18

To define a design load should divide the value of the characteristic load by a safety factor  $\gamma_m = 1,33$ .

Characteristic load bearing capacity of pull-out resistance [kN]					
Fastener	Washer	Substrate			
		Concrete acc. To EN 206-1		Embedment depth [mm]	Drill hole diameter [mm]
		C12/15	C20/25		
GTS-S 4,8xL MQ 8x40	G1, G2	1,13	1,13	40,0	8,0
	DVP	1,13	1,13		
GTS-S 4,8xL U-ZK 8x57	G1, G2	1,13	1,13	60,0	8,0
	DVP	1,13	1,13		

To define a design load should divide the value of the characteristic load by a safety factor  $\gamma_m = 1,33$ .

Characteristic load bearing capacity of pull-out resistance [kN]				
Fastener	Washer	Substrate		
		Fibre-cement profiled sheets acc. to EN 494	Embedment depth (thickness of fibre-cement profiled sheets) [mm]	Drill hole diameter [mm]
GTS-S 4,8xL	G1, G2	0,77	5,00	4,0
	DVP	0,77		

To define a design load should divide the value of the characteristic load by a safety factor  $\gamma_m = 1,33$ .

Characteristic load bearing capacity of pull-out resistance [kN]			
Fastener	Washer	Substrate	
		Wood acc. to EN 14081-1	Embedment depth [mm]
		≥C24	
GTS-S 4,8xL	G1, G2	1,57	20,00
	DVP	1,57	

To define a design load should divide the value of the characteristic load by a safety factor  $\gamma_m = 1,33$ .

Characteristic load bearing capacity of pull-out resistance [kN]			
Fastener	Washer	Substrate	
		OSB acc. to EN 300	Embedment depth (thickness of OSB) [mm]
		Density $\geq 625 \text{ kg/m}^3$	
GTS-S 4,8xL	G1, G2	1,57	18,00
	DVP	1,57	

To define a design load should divide the value of the characteristic load by a safety factor  $\gamma_m = 1,33$ .

## OTHER FEATURES

BASE MATERIAL: *TRAPEZOIDAL METAL SHEET, CONCRETE, WOOD, WOODEN MATERIALS, FIBROUS-CEMENT BOARD*

TYPE OF CUT: *TX25*

ADDITIONAL CORROSION PROTECTION: *gRey.coat*

CORROSIVITY CATEGORY: *C4*

TECHNICAL OPINION ON CORROSION PROTECTION: *02248/16/Z00NZM*

MINIMUM THICKNESS OF SHEETS: *0,50 [mm]*

MAXIMUM CAPACITY OF DRILLING: *2 x 0,88 mm*

RECOMMENDED ROTARY SPEED (IDLE): *1500 rpm*

POSSIBILITY OF COMPLETE WITH: *PLASTIC SLEEVE G1, G2, DVP WASHER*



ETA



DWU/DoP



KDWU



ZKP