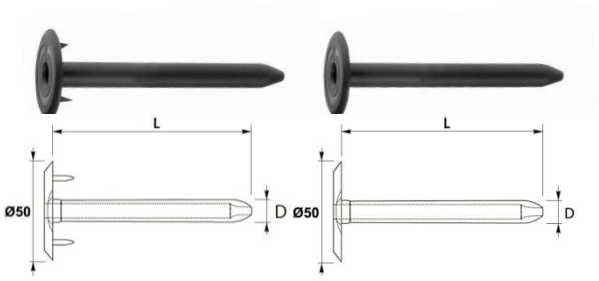
G1, G2

PLASTIC TUBES

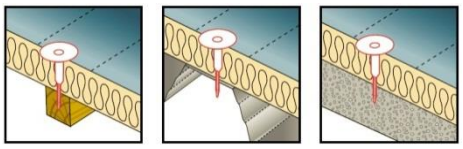


PRODUCT DESCRIPTION

Plastic tubes with round head with a diameter of 50 mm, made from high quality polypropylene.

APPLICATION

Designed for fastening insulation materials on flat roof applications, in combination with screws of type GTS-S, GTS-B, GTHD. G1 sleeves are additionally equipped with spikes that are provide higher bearing capacity of the connection tube-membrane.



LENGTH

Fastener type	Dimensions D x L [mm]
G2	14,5 x 35
G2	14,5 x 65
G2	14,5 x 85
G2	14,5 x 105
G2	14,5 x 135
G2	14,5 x 165
G2	14,5 x 185
G2	14,5 x 235
G2	14,5 x 285
G2	14,5 x 335
G2	14,5 x 385
G2	14,5 x 435
G1	14,5 x 35
G1	14,5 x 65
G1	14,5 x 85
G1	14,5 x 105
G1	14,5 x 135
G1	14,5 x 165
G1	14,5 x 185
G1	14,5 x 285

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NATIONAL TECHNICAL ASSESSMENT ITB-KOT-2018/0706

LOAD BEARING CAPACITY OF PULL-OUT RESISTANCE:

Fastener	Plastic tubes	Substrate	Embedment depth [mm]	Drill hole diameter [mm]	Characteristic load [kN]	Designed load [kN]
GTS-S + UZK	G	Concrete class min. C12/15	60 (In the case of concrete trough plates 50-60 mm - through assembly)	7,5	1,13	0,57
GTHD	G		30,0	5,0	1,58	0,79
GTS-S	G	Wood class min. C24	20,0	-	1,57	0,79
GTHD	G		30,0	-	1,58	0,79
GTS-S	G	OSB thick. 18 mm p> 625 kg/m^3	18,0 mm (through assembly)	-	1,57	0,79
GTHD	G		18,0 mm (through assembly)	-	1,58	0,79
GTS-S	G	Fiber-cement board (thick. 5 mm)	5,0 (through assembly)	4,0	0,77	0,58
GTHD	G			5,0	1,58	1,19

Concrete *in accordance with standard* PN-EN 206:2014
Wood *in accordance with standard* PN-EN 14081-1+A1:2011
OSB *in accordance with standard* PN-EN 300:2007
Fiber-cement board *in accordance with standard* PN-EN 494+A3:2009

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LOAD BEARING CAPACITY OF PULL-OUT RESISTANCE IN STEEL BASE:

Fastener	Plastic tubes	Substrate	Thickness of steel base [mm]	Characteristic load [kN]	Designed load [kN]
GTS-S	G	steel grade S280GD	0,50	0,72	0,54
			0,63	0,97	0,73
			0,75	1,13	1,00
			0,88	1,18	1,04
GTS-B	G	steel grade S280GD	0,75	1,01	0,76
			0,88	1,11	0,76
			1,00	1,59	0,76
			1,25	1,59	0,76

Steel sheet S280GD in accordance with standard EN 10346

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EUROPEAN TECHNICAL APPROVAL ETA-12/0149

CHARACTERISTIC LOAD BEARING CAPACITY OF PULL-OUT RESISTANCE

Characteristic load bearing capacity of pull-out resistance [kN]								
Fastener	Plastic tubes	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
GTS-B 4,8xL	G1, G2	-	-	1,08	1,08	1,11	1,59	1,59
GTSX-B 4,8xL	G1, G2	-	-	-	0,82	1,06	1,46	1,46

To define a design load should divide the value of the characteristic load by a safety factor **γm = 1,33.**

Characteristic load bearing capacity of pull-out resistance [kN]					
Fastener	Plastic tubes	Substrate			
		Concrete acc. To EN 206-1		Embedment depth [mm]	Drill hole diameter [mm]
		C12/15	C20/25		
GTHD 6,3xL	G1, G2	1,58	1,58	30,0	5,0
GTS-S 4,8xL MQ 8x40	G1, G2	1,13	1,13	40,0	8,0
GTS-S 4,8xL U-ZK 8x57	G1, G2	1,13	1,13	60,0	8,0

To define a design load should divide the value of the characteristic load by a safety factor **γm = 1,33.**

Characteristic load bearing capacity of pull-out resistance [kN]				
Fastener	Plastic tubes	Substrate		
		Fibre-cement profiled sheets acc. to EN 494	Embedment depth (thickness of fibre-cement profiled sheets) [mm]	Drill hole diameter [mm]
GTHD 6,3xL	G1, G2	1,58	5,00	5,0
GTS-S 4,8xL	G1, G2	0,77	5,00	4,0

To define a design load should divide the value of the characteristic load by a safety factor **γm = 1,33.**

Characteristic load bearing capacity of pull-out resistance [kN]			
Fastener	Plastic tubes	Substrate	
		Wood acc. to EN 14081-1	Embedment depth [mm]
		≥C24	
GTHD 6,3xL	G1, G2	1,58	30,00
GTS-S 4,8xL	G1, G2	1,57	20,00

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To define a design load should divide the value of the characteristic load by a safety factor **γm = 1,33.**

Characteristic load bearing capacity of pull-out resistance [kN]			
Fastener	Plastic tubes	Substrate	
		OSB acc. to EN 300	Embedment depth (thickness of OSB) [mm]
		Density ≥625 kg/m³	
GTHD 6,3xL	G1, G2	1,58	18,00
GTS-S 4,8xL	G1, G2	1,57	18,00

To define a design load should divide the value of the characteristic load by a safety factor **γm = 1,33.**

THER FEATURES

BASE MATERIAL:	*TRAPEZOIDAL SHEET, CONCRETE, WOOD, WOODEN MATERIALS, FIBER-CEMENT BOARD*
TUBE MATERIAL:	*POLIPROPYLENE*
POSSIBILITY OF COMPLETE WITH:	*GTS-B, GTS-S, GTS-S + U-ZK, GTS-S + MQ, GTHD*

ETA DWU/DoP KDWU ZKP

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