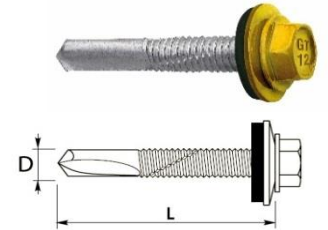


GTR 12 A16

SELF-DRILLING SCREWS WITH WASHER
FOR FIXING STEEL SHEETS



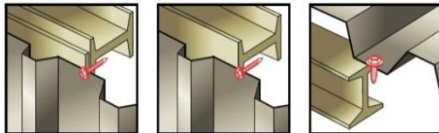
PRODUCT DESCRIPTION

Self-drilling, self-tapping screws made of surface-hardened carbon steel, with drilling point #5, fine thread and a hex head, with integrated aluminum washer with vulcanized EPDM layer. Additional corrosion protection: gRey.coat coating.


APPLICATION

Designed for fixing construction corrugated steel sheets to hot-rolled steel structures.

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



LENGTH OF SCREWS

Fastener type		Dimensions D x L [mm]	Maximum drill capacity [mm]	Maximum thickness of fixed elements [mm]
			DC	MTmax
GTR 12	A16	5,5 x 35	12,00	1
GTR 12	A16	5,5 x 51	12,00	16
GTR 12	A16	5,5 x 67	12,00	32

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

NATIONAL TECHNICAL ASSESSMENT ITB-KOT-2018/0680

CHARACTERISTIC LOAD BEARING CAPACITY FOR SHEAR AND PULL-OUT RESISTANCE IN A STEEL BASE

Substrate thickness ¹⁾ [mm]		4,00	5,00	6,00	8,00	10,00	12,00	Wood class \geq C24	
$M_{t,nom}$		6 Nm							
Attachment thickness ²⁾ [mm]	SHEAR [kN]	0,50	1,34	1,34	1,34	1,34	1,34	—	/
		0,55	1,34	1,34	1,34	1,34	1,34	—	
		0,63	1,46	1,46	1,46	1,46	1,46	—	
		0,75	1,93	1,93	1,93	1,93	1,93	—	
		0,88	2,35	2,35	2,35	2,35	2,35	—	
		1,00	2,82	2,82	2,82	2,82	2,82	—	
		1,13	2,82	2,82	2,82	2,82	2,82	—	
		1,25	2,82	2,82	2,82	2,82	2,82	—	
		1,50	2,82	2,82	2,82	2,82	2,82	—	
		1,75	2,82	2,82	2,82	2,82	2,82	—	
	2,00	2,82	2,82	2,82	2,82	2,82	—		
	FOR PULL OUT [kN]	0,50	3,16	3,16	3,16	3,16	3,16	—	
		0,55	3,16	3,16	3,16	3,16	3,16	—	
		0,63	3,63	3,63	3,63	3,63	3,63	—	
		0,75	4,17	4,17	4,17	4,17	4,17	—	
		0,88	4,18	4,18	4,18	4,18	4,18	—	
		1,00	4,75	4,75	4,75	4,75	4,75	—	
		1,13	4,75	4,75	4,75	4,75	4,75	—	
		1,25	4,75	4,75	4,75	4,75	4,75	—	
		1,50	4,75	4,75	4,75	4,75	4,75	—	
1,75		4,75	4,75	4,75	4,75	4,75	—		
2,00	4,75	4,75	4,75	4,75	4,75	—			

¹⁾ steel grade S280GD, S320GD or S350GD according to PN-EN 10346:2015

²⁾ steel grade S280GD, S320GD or S350GD according to PN-EN 10346:2015

If both elements I and II are made of steel grade S320GD, values $V_{R,k}$ can be increased by 8,3%

If both elements I and II are made of steel grade S350GD, values $V_{R,k}$ can be increased by 16,6%

EUROPEAN TECHNICAL APPROVAL ETA-12/0580

CHARACTERISTIC LOAD BEARING CAPACITY OF SHEAR RESISTANCE

tN,II* [mm]	4,00	5,00	6,00	8,00	10,00
VR,k [kN] for tN,I* [mm]	0,50	1,34	1,34	1,34	1,34
	0,55	1,34	1,34	1,34	1,34
	0,63	1,46	1,46	1,46	1,46
	0,75	1,93	1,93	1,93	1,93
	0,88	2,35	2,35	2,35	2,35
	1,00	2,82	2,82	2,82	2,82
	1,13	2,82	2,82	2,82	2,82
	1,25	2,82	2,82	2,82	2,82
	1,50	2,82	2,82	2,82	2,82
	1,75	2,82	2,82	2,82	2,82
	2,00	2,82	2,82	2,82	2,82

Element I - sheet steel class S280GD; S320GD; Standard S350GD according to EN 10346.

Element II - sheet steel class S280GD; S320GD; Standard S350GD according to EN 10346.

To determine the structural carrying capacity of the characteristic safety factor $\gamma_m = 1.33$.

CHARACTERISTIC LOAD BEARING CAPACITY OF PULL-OUT RESISTANCE IN A STEEL BASE

tN,II* [mm]	4,00	5,00	6,00	8,00	10,00
NR,k [kN] for tN,I* [mm]	0,50	3,16	3,16	3,16	3,16
	0,55	3,16	3,16	3,16	3,16
	0,63	3,63	3,63	3,63	3,63
	0,75	4,17	4,17	4,17	4,17
	0,88	4,18	4,18	4,18	4,18
	1,00	4,75	4,75	4,75	4,75
	1,13	4,75	4,75	4,75	4,75
	1,25	4,75	4,75	4,75	4,75
	1,50	4,75	4,75	4,75	4,75
	1,75	4,75	4,75	4,75	4,75
	2,00	4,75	4,75	4,75	4,75

Element I - sheet steel class S280GD; S320GD; Standard S350GD according to EN 10346.

Element II - sheet steel class S280GD; S320GD; Standard S350GD according to EN 10346.

To determine the structural carrying capacity of the characteristic safety factor $\gamma_m = 1.33$.

OTHER FEATURES

BASE MATERIAL:	STEEL PROFILE
SIZE OF HEX HEAD:	8 mm
MINIMUM THICKNESS OF STEEL BASE:	4,00 mm
MAXIMUM DRILLING CAPACITY:	12,00 mm
ADDITIONAL CORROSION PROTECTION:	gRey.coat
CORROSIVITY CATEGORY:	C4
TECHNICAL OPINION ON CORROSION PROTECTION:	02248/16/Z00NZM
PAINTING POSSIBILITY:	YES
THICKNESS OF POLYESTER PAINT:	50 µm
TIGHTENING TORQUE:	5 Nm
RECOMMENDED ROTARY SPEED (IDLE):	1500 rpm
DIAMETER OF ALUMINUM WASHER A16:	16 mm

