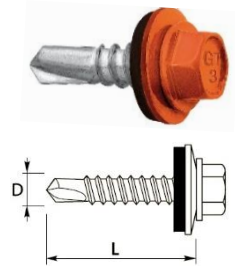


GT 3 Z14

SELF-DRILLING SCREWS WITH WASHER FOR FIXING STEEL SHEETS



PRODUCT DESCRIPTION

Self-drilling, self-tapping screws made of surface-hardened carbon steel, with a reduced drilling point #2, fine thread and a hex head, with an integrated steel washer with vulcanized EPDM.


APPLICATION

Designed for fastening corrugated construction steel sheets to thin-walled steel structures and for overlap joints fastening of construction steel sheets to each other. Protected with paint coating - polyester thickness of not less than 50 µm, intended for use in environments with corrosivity class C1, C2 and C3 according to PN-EN ISO 12944-2: 2001 standard.

Galvanized without paint coating intended for use in environments with corrosivity class C1, C2.



LENGTH OF SCREWS

Fastener type		Dimensions D x L [mm]	Maximum drill capacity [mm]	Maximum thickness of fixed elements [mm]
			DC	MTmax
GT 3	Z14	4,8 x 16	3,00	0
GT 3	Z14	4,8 x 19	3,00	3
GT 3	Z14	4,8 x 22	3,00	6
GT 3	Z14	4,8 x 25	3,00	9
GT 3	Z14	4,8 x 32	3,00	16
GT 3	Z14	4,8 x 35	3,00	19
GT 3	Z14	4,8 x 45	3,00	29
GT 3	Z14	4,8 x 55	3,00	39

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

NATIONAL TECHNICAL ASSESSMENT ITB-KOT-2018/0680

CHARACTERISTIC BEARING CAPACITY OF SHEAR AND PULL-OUT FIXINGS FROM STEEL SUBSTRATE

Thickness of substrate ¹⁾ [mm]		0,75	1,00	1,25	1,50	2,00	2,50	Wood class \geq C24	
$M_{t,nom}$		3 Nm							
Thickness of steel substrate ²⁾ [mm]	Characteristic capacity For shear [kN]	0,50	—	1,08	1,08	1,08	1,08	—	
		0,55	—	1,08	1,08	1,08	1,08	—	
		0,63	—	1,38	1,38	1,38	1,38	—	
		0,75	2,11	2,11	2,11	2,11	2,11	—	
		0,88	2,11	2,29	2,29	2,29	2,29	—	
		1,00	2,11	2,59	2,59	2,59	2,59	—	
		1,13	2,11	2,59	2,59	2,59	—	—	
		1,25	2,11	2,59	2,74	2,74	—	—	
		1,50	2,11	2,59	2,74	3,41	—	—	
		1,75	2,11	2,59	2,74	—	—	—	
	2,00	2,11	2,59	—	—	—	—		
	For pull-out [kN]	0,50	—	0,97	1,43	1,69	2,19	—	
		0,55	—	0,97	1,43	1,69	2,19	—	
		0,63	—	0,97	1,43	1,69	2,76	—	
		0,75	0,75	0,97	1,43	1,69	2,76	—	
		0,88	0,75	0,97	1,43	1,69	2,76	—	
		1,00	0,75	0,97	1,43	1,69	2,76	—	
		1,13	0,75	0,97	1,43	1,69	—	—	
		1,25	0,75	0,97	1,43	1,69	—	—	
		1,50	0,75	0,97	1,43	1,69	—	—	
1,75		0,75	0,97	1,43	—	—	—		
2,00	0,75	0,97	—	—	—	—			

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 PULL-OUT RESISTANCE

tN,II* [mm]	1,00	1,25	1,50	2,00	
NR,k [kN] for tN,I* [mm]	0,50	1,08	1,08	1,08	1,08
	0,55	1,08	1,08	1,08	1,08
	0,63	1,38	1,38	1,38	1,38
	0,75	2,11	2,11	2,11	2,11
	0,88	2,29	2,29	2,29	2,29
	1,00	2,59	2,59	2,59	2,59
	1,13	2,59	2,59	2,59	-
	1,25	2,59	2,74	2,74	-
	1,50	2,59	2,74	3,41	-
	1,75	2,59	2,74	-	-
	2,00	2,59	-	-	-

Element I - sheet steel of S280GD grade; S320GD; S350GD according to EN 10346.

Element II - sheet steel of S280GD grade; S320GD; S350GD according to EN 10346.

In order to determine the design load, the characteristic load factor must be divided by the safety factor $\gamma_m = 1.33$.

CHARACTERISTIC LOAD BEARING CAPACITY OF SHEAR RESISTANCE FROM A STEEL BASE

tN,II* [mm]	1,00	1,25	1,50	2,00	
VR,k [kN] for tN,I* [mm]	0,50	0,97	1,43	1,69	2,19
	0,55	0,97	1,43	1,69	2,19
	0,63	0,97	1,43	1,69	2,76
	0,75	0,97	1,43	1,69	2,76
	0,88	0,97	1,43	1,69	2,76
	1,00	0,97	1,43	1,69	2,76
	1,13	0,97	1,43	1,69	-
	1,25	0,97	1,43	1,69	-
	1,50	0,97	1,43	1,69	-
	1,75	0,97	1,43	-	-
	2,00	0,97	-	-	-

Element I - sheet steel of S280GD grade; S320GD; S350GD according to EN 10346.

Element II - sheet steel of S280GD grade; S320GD; S350GD according to EN 10346.

In order to determine the design load, the characteristic load factor must be divided by the safety factor $\gamma_m = 1.33$.

OTHER FEATURES

BASE MATERIAL:	<i>COLD-ROLLED STEEL PROFILE, TRAPEZOIDAL METAL SHEET</i>
SIZE OF HEX HEAD:	<i>8 mm</i>
MINIMUM THICKNESS OF STEEL BASE (OVERLAP JOINTS):	<i>0,75 mm</i>
MAXIMUM CAPACITY OF DRILLING:	<i>3,00 mm</i>
THICKNESS OF ZINC COATING:	<i>12 µm</i>
CORROSIVE ENVIRONMENT:	<i>PAINTED - C3 UNPAINTED - C2</i>
OPINION ON ANTI-CORROSIVE PROTECTION:	<i>02248/16/Z00NZM</i>
POSSIBILITY OF PAINTING:	<i>YES</i>
PAINT COATING THICKNESS:	<i>50 µm</i>
TIGHTENING TORQUE:	<i>3 Nm</i>
RECOMMENDED ROTARY SPEED (IDLE):	<i>1800 rpm</i>
DIAMETER OF STEEL WASHER Z14:	<i>14 mm</i>

