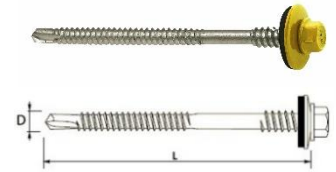


## GT 6 SP Z19

SELF-DRILLING SCREWS WITH A WASHER  
FOR SANDWICH PANELS FIXING

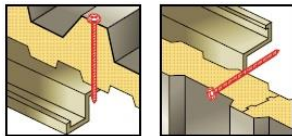


### PRODUCT DESCRIPTION


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
GT 6 SP	Z19	5,5/6,3 x 65	6,00	20	40
GT 6 SP	Z19	5,5/6,3 x 90	6,00	35	65
GT 6 SP	Z19	5,5/6,3 x 110	6,00	55	85
GT 6 SP	Z19	5,5/6,3 x 125	6,00	70	100
GT 6 SP	Z19	5,5/6,3 x 150	6,00	95	125
GT 6 SP	Z19	5,5/6,3 x 175	6,00	120	150
GT 6 SP	Z19	5,5/6,3 x 200	6,00	145	175
GT 6 SP	Z19	5,5/6,3 x 230	6,00	155	205
GT 6 SP	Z19	5,5/6,3 x 275	6,00	155	205
GT 6 SP	Z19	5,5/6,3 x 330	6,00	245	295

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

## EUROPEAN TECHNICAL APPROVAL ETA-13/0199

### 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  $\gamma_m = 1.33$ .

## NATIONAL TECHNICAL ASSESSMENT ITB-KOT-2017/0022

### 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	
	≥140	23	23	23	23	10	10	10	

Element I – steel plate s280gd; s320gd; s350gd according to: en 10346.

Element II – steel plate s235 according to: en 10025-1 or steel plate s280gd; s320gd; s350gd according to: en 10346.

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:	<i>COLD-ROLLED STEEL PROFILE</i>
SIZE OF HEX HEAD:	<i>8 mm</i>
MINIMUM THICKNESS OF STEEL BASE:	<i>1,0 mm</i>
MAXIMUM DRILLING CAPACITY:	<i>6,0 mm</i>
THICKNESS OF THE ZINC COATING:	<i>12 µm</i>
CORROSIVITY CATEGORY:	<i>PAINTED - C3 NOT PAINTED - C2</i>
TECHNICAL OPINION ON CORROSION PROTECTION:	<i>02248/16/Z00NZM</i>
PAINTING POSSIBILITY:	<i>YES</i>
THICKNESS OF POLYESTER PAINT:	<i>50 µm</i>
TIGHTENING TORQUE:	<i>5 Nm</i>
RECOMMENDED SPEED OF THE TOOL WITHOUT LOAD:	<i>1500 rpm</i>
WASHER DIAMETER (STEEL Z19):	<i>19 mm</i>



ETA



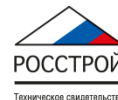
DWU/DoP



KDWU



ZKP



TC



POCC



SZU