

OC-55/63 Self-drilling screws for composite panels max 6mm

The special drill bit shape designed to provide quick and trouble-free installation in metal constructions made from cold formed sections



Approvals and Reports

- ETA-13/0453



According to colorsystems:

RAL

Product information

Features and benefits

- Coloured polyester protective coating with a thickness of 45-50 um (RAL, NCS, RR), provides additional protection against corrosion. Various colours available to suit all metal sheet variants. UV stabilizers ensure colour quality over a long period of use.
- Hardened surface of the thread (flexible core). Corrosion resistant zinc coating of thickness not less than 12 um.
- The shape of the thread and its height is designed for applications into sandwich panels and steel construction.
- Two types of threads: one designed for mounting into a steel structure, second under head thread, prevents external panel dents and helps to seal the connection.
- The drill bit is designed to provide quick and trouble-free installation in the steel. Sharp point of the drill prevents movement of the surface of the fixture.

Applications

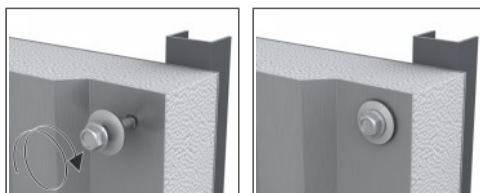
- For fixing of: Composite panels to cold formed sections structures

Base materials

Approved for use in:

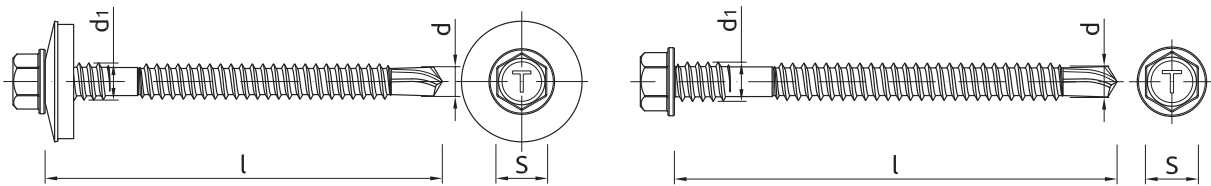
- Structural Steel

Installation guide



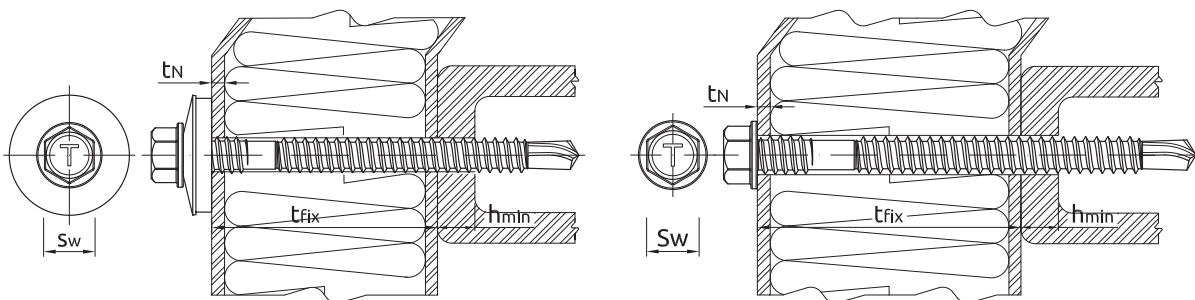
1. Magnetic driver must be used.
2. Lowest torque setting on impact screwdriver to start.
3. Reduce speed when the washer starts to deform.
4. Use a cordless Impact screwdriver. Note: Never use a power drill.
5. For installation please use screwdriver of load capacity 1600 - 2000 rpm with regulated trogue.

Product information



Size	Product Code	Screw				Fixture		Max. drilling thickness	Washer size
		Diameter		Length	Head size	Max. thickness with washer	Max. thickness without washer		
		d	d ₁	l	S	t _{fix}			
[mm]									
Ø5.5/6.3	OC-55/63080	5.5	6.3	80	8	62	65	5	19
	OC-55/63100	5.5	6.3	100	8	82	85	5	19
	OC-55/63120	5.5	6.3	120	8	102	105	5	19
	OC-55/63130	5.5	6.3	130	8	112	115	5	19
	OC-55/63150	5.5	6.3	150	8	132	135	5	19
	OC-55/63160	5.5	6.3	160	8	142	145	5	19
	OC-55/63180	5.5	6.3	180	8	162	165	5	19
	OC-55/63210	5.5	6.3	210	8	192	195	5	19
	OC-55/63230	5.5	6.3	230	8	212	215	5	19
OC-55/63280	5.5	6.3	280	8	262	265	5	19	

Installation data



Size	Ø5.5/6.3		
Screw diameter	d	[mm]	5.5/6.3
Hole diameter in substrate	d ₀	[mm]	-
Min. hole depth in substrate	h ₀	[mm]	-
Min. installation depth	h _{nom}	[mm]	-
Min. substrate thickness	h _{min}	[mm]	1
Min. spacing	s _{min}	[mm]	30
Min. edge distance	c _{min}	[mm]	10
Wrench size	Sw	[mm]	8

Basic performance data

Performance data for single screw without influence of edge distance and spacing

Size		TENSION LOAD		SHEAR LOAD	
		Ø5.5/6.3 (T16)		Ø5.5/6.3	
MEAN ULTIMATE LOAD					
Substrate thickness 1.50mm	[kN]	1.55		1.96	
Substrate thickness 3.00mm	[kN]	3.82		-	
CHARACTERISTIC LOAD					
Substrate thickness 1.50mm	[kN]	1.18		1.63	
Substrate thickness 3.00mm	[kN]	2.91		-	
DESIGN LOAD					
Substrate thickness 1.50mm	[kN]	0.89		1.23	
Substrate thickness 3.00mm	[kN]	2.19		-	
RECOMMENDED LOAD					
Substrate thickness 1.50mm	[kN]	0.63		0.88	
Substrate thickness 3.00mm	[kN]	1.56		-	

Design performance data

DESIGN PERFORMANCE DATA Ø5.5/6.3

TENSION LOAD

Size			Ø5.5/6.3	
Substrate thickness	h_{min}	[mm]	1.50	3.00
Characteristic load	N_{Rk}	[kN]	1.18	10.05
Design resistance $\gamma_{Ms} = 1.33$	N_{Rd}	[kN]	0.89	10.05

TENSION LOAD TO PULL SCREW WITH WASHER 16/19 THROUGH FIXTURE

Size			Ø5.5/6.3			
Sheet metal thickness	t_N	[mm]	0.40	0.50	0.63	0.75
Characteristic resistance	$N_{o,Rk}$	[kN]	1.65	2.91	3.87	4.55
Design resistance $\gamma_{Ms} = 1.33$	$N_{o,Rd}$	[kN]	1.24	2.19	2.91	3.42

SHEAR LOAD

Size			Ø5.5/6.3		
Sheet metal thickness	t_N	[mm]	0.40	0.50	0.60
SUBSTRATE THICKNESS 1.50 mm					
Design resistance $\gamma_{Mc} = 1.33$	V_{Rd}	[kN]	0.74	1.23	1.44
Characteristic resistance	V_{Rk}	[kN]	-	1.63	1.91

Product commercial data

Product Code	Screw Diameter [mm]	Washer size [mm]	Quantity [pcs]			Weight [kg]			Bar Codes
			Box	Outer	Pallet	Box	Outer	Pallet	
OC-55/63080 ¹⁾	6.3	19	100	800	19200	1.58	12.6	333.4	5906675327020
OC-55/63100 ¹⁾	6.3	19	100	800	19200	1.70	13.6	356.4	5906675327228
OC-55/63120 ¹⁾	6.3	19	100	800	19200	2.1	16.6	427.4	5906675327327
OC-55/63130 ¹⁾	6.3	19	100	800	19200	2.2	17.4	448.6	5906675327426
OC-55/63150 ¹⁾	6.3	19	100	800	19200	2.4	19.4	494.6	5906675327624
OC-55/63160 ¹⁾	6.3	19	100	800	19200	2.4	19.4	494.6	5906675100265
OC-55/63180 ¹⁾	6.3	19	100	800	19200	2.8	22.1	559.9	5906675327822
OC-55/63210 ¹⁾	6.3	19	100	800	19200	3.2	25.6	644.4	5906675100302
OC-55/63230 ¹⁾	6.3	19	100	800	19200	2.9	23.5	594.5	5906675327921
OC-55/63280 ¹⁾	6.3	19	100	100	11200	2.9	2.9	359.3	5906675100319

1) ETA-13/0453