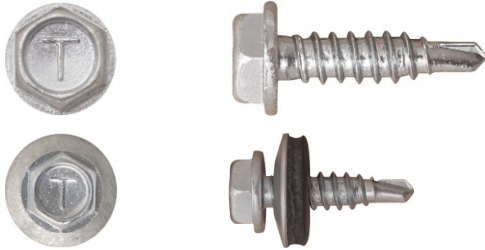


OCW Self-drilling screws

Reduced drilling point guarantees optimum tightness of the fastening



Approvals and Reports

- ETA-13/0203



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 has a thickness of no less than 12um.
- The full length thread design prevents twisting and allows application without a washer. Furthermore the specific shape and type of thread allow metal sheets to be connected together.
- Self vulcanizing EPDM washer. Temperature and UV resistant. The special shape of the washer ensures proper seating of the sealing material on the outer cladding material fixture which guarantees a proper seal.

Applications

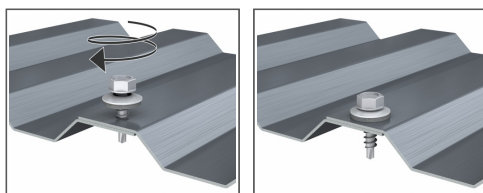
- For fixing of: Overlapping sheet connection

Base materials

Approved for use in:

- Structural Steel
- Metal Sheet & Profiles

Installation guide

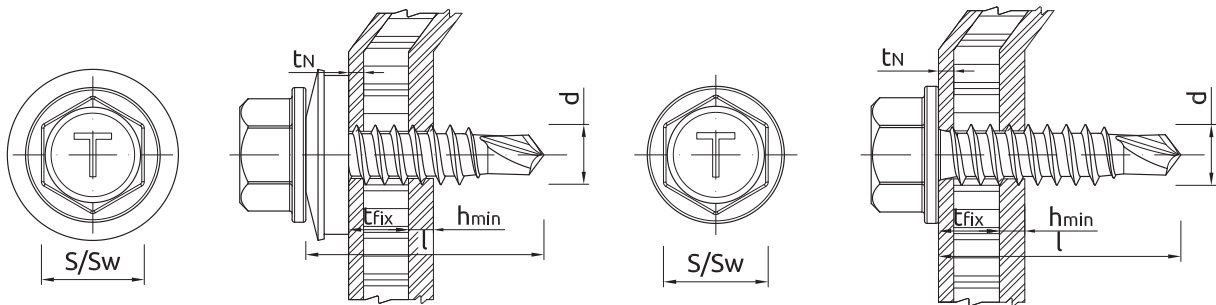


1. Screw must be installed at 90 degrees to substrate.
2. Magnetic driver must be used.
3. Lowest torque setting on impact screwdriver to start.
4. Reduce speed when the washer starts to deform.
5. Use a cordless Impact screwdriver. Note: Never use a power drill.
6. For installation please use screwdriver of load capacity 1600 - 2000 rpm with regulated torque.

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	l	S	t _{fix}			
[mm]								
Ø4.8	OCW-48016	4.8	16	8	4	7	2.5	14
	OCW-48019	4.8	19	8	7	10	2.5	14

Installation data



Size	Ø4.8		
Screw diameter	d	[mm]	4.8
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]	0.4
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	
	Ø4.8 (T14)		Ø4.8	
MEAN ULTIMATE LOAD				
Substrate thickness 0,40mm	[kN]	0.65	0.47	
Substrate thickness 0,50mm	[kN]	0.71	0.49	
Substrate thickness 0,63mm	[kN]	1.17	0.97	
Substrate thickness 0,75mm	[kN]	1.23	1.11	
Substrate thickness 1,00mm	[kN]	1.86	2.12	
Substrate thickness 1,25mm	[kN]	2.52	-	
CHARACTERISTIC LOAD				
Substrate thickness 0,40mm	[kN]	0.42	0.37	
Substrate thickness 0,50mm	[kN]	0.48	0.38	
Substrate thickness 0,63mm	[kN]	0.78	0.76	
Substrate thickness 0,75mm	[kN]	0.91	0.89	
Substrate thickness 1,00mm	[kN]	1.30	1.72	
Substrate thickness 1,25mm	[kN]	1.30	-	

Basic performance data

Size	TENSION LOAD		SHEAR LOAD	
	Ø4.8 (T14)		Ø4.8	
DESIGN LOAD				
Substrate thickness 0,40mm	[kN]	0.32	0.28	
Substrate thickness 0,50mm	[kN]	0.36	0.29	
Substrate thickness 0,63mm	[kN]	0.59	0.57	
Substrate thickness 0,75mm	[kN]	0.68	0.67	
Substrate thickness 1,00mm	[kN]	0.98	1.29	
Substrate thickness 1,25mm	[kN]	0.98	-	
RECOMMENDED LOAD				
Substrate thickness 0,40mm	[kN]	0.23	0.20	
Substrate thickness 0,50mm	[kN]	0.26	0.20	
Substrate thickness 0,63mm	[kN]	0.42	0.41	
Substrate thickness 0,75mm	[kN]	0.49	0.48	
Substrate thickness 1,00mm	[kN]	0.70	0.92	
Substrate thickness 1,25mm	[kN]	0.70	-	

Design performance data

DESIGN PERFORMANCE DATA Ø4.8

TENSION LOAD

Size			Ø4.8					
Substrate thickness	h_{min}	[mm]	0.40	0.50	0.63	0.75	1.00	1.25
Characteristic load	N_{Rk}	[kN]	0.42	0.48	0.78	0.91	1.45	1.81
Design resistance $\gamma_{Ms} = 1.33$	N_{Rd}	[kN]	0.32	0.36	0.59	0.68	1.09	1.36

TENSION LOAD TO PULL SCREW WITH WASHER 14 THROUGH FIXTURE

Size			Ø4.8				
Sheet metal thickness	t_N	[mm]	0.40				
Characteristic resistance	$N_{o,Rk}$	[kN]	1.30				
Design resistance $\gamma_{Ms} = 1.33$	$N_{o,Rd}$	[kN]	0.98				

SHEAR LOAD

Size			Ø4.8				
Sheet metal thickness	t_N	[mm]	0.40	0.50	0.63	0.75	1.00
SUBSTRATE THICKNESS 0.40 mm							
Characteristic resistance	V_{Rk}	[kN]	0.37	-	-	-	-
Design resistance $\gamma_{Mc} = 1.33$	V_{Rd}	[kN]	0.28	-	-	-	-
SUBSTRATE THICKNESS 0.50 mm							
Characteristic resistance	V_{Rk}	[kN]	0.37	0.38	-	-	-
Design resistance $\gamma_{Mc} = 1.33$	V_{Rd}	[kN]	0.28	0.29	-	-	-
SUBSTRATE THICKNESS 0.63 mm							
Characteristic resistance	V_{Rk}	[kN]	0.37	0.38	0.76	-	-
Design resistance $\gamma_{Mc} = 1.33$	V_{Rd}	[kN]	0.28	0.29	0.57	-	-
SUBSTRATE THICKNESS 0.75 mm							
Characteristic resistance	V_{Rk}	[kN]	0.37	0.38	0.76	0.89	-
Design resistance $\gamma_{Mc} = 1.33$	V_{Rd}	[kN]	0.28	0.29	0.57	0.67	-
SUBSTRATE THICKNESS 1.00 mm							
Characteristic resistance	V_{Rk}	[kN]	0.37	0.38	0.76	0.89	1.72
Design resistance $\gamma_{Mc} = 1.33$	V_{Rd}	[kN]	0.28	0.29	0.57	0.67	1.29

Product commercial data

Product Code	Washer size [mm]	Quantity [pcs]			Weight [kg]			Bar Codes
		Box	Outer	Pallet	Box	Outer	Pallet	
OCW-48016 ¹⁾	14	250	4000	96000	1.06	17.0	437.0	5906675324029
OCW-48019 ¹⁾	14	250	4000	96000	1.04	16.6	429.4	5906675324128

1) ETA-13/0203