ONP Self-drilling screws

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

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 of thickness not less than 12 um. The shape of the thread and its height is closely related to the intended use of self drilling fixing into steel construction.
- 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

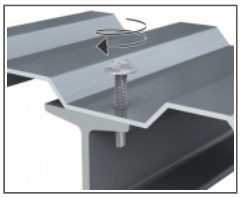
- For fixing: Supporting and cladding metal sheet to steel structures on facades or flat roof construction

Base materials

Approved for use in:

- Structural Steel

Installation guide

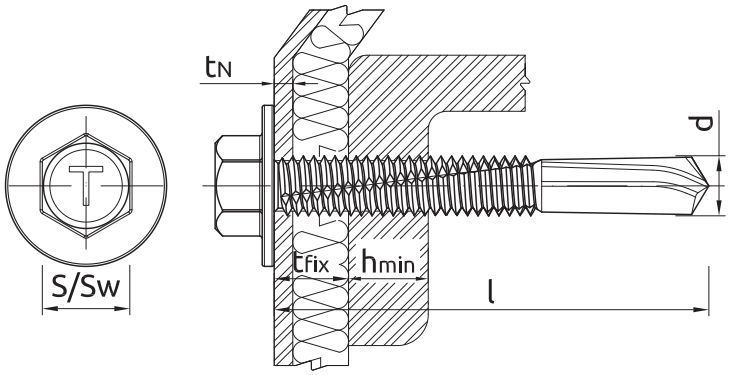


1. Screw must be installed at 90 degrees to substrate.
2. Magnetic driver must be used.
3. Lowest torque setting on impact screwdriver to start.
4. Reduce speed when the washer starts to deform.
5. Use a cordless Impact screwdriver. Note: Never use a power drill.
6. For installation please use screwdriver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

Product information

Size	Product Code	Screw			Fixture	Max. drilling thickness
		Diameter	Length	Head size	Max. thickness without washer	
		d	l	S	t_{fix}	
		[mm]				
Ø5.5	ONP-55032	5.5	32	8	9	12
	ONP-55038	5.5	38	8	15	12

Installation data



Size			Ø5.5
Screw diameter	d	[mm]	5.5
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]	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
		Ø5.5	Ø5.5
MEAN ULTIMATE LOAD			
Substrate thickness 4,00mm	[kN]	3.21	1.69
CHARACTERISTIC LOAD			
Substrate thickness 4,00mm	[kN]	2.64	1.35
DESIGN LOAD			
Substrate thickness 4,00mm	[kN]	1.98	1.02
RECOMMENDED LOAD			
Substrate thickness 4,00mm	[kN]	1.42	0.73

Design performance data

DESIGN PERFORMANCE DATA Ø5.5

TENSION LOAD

Size			Ø5.5
Substrate thickness	h_{min}	[mm]	4.00
Characteristic load	N_{Rk}	[kN]	5.70
Design resistance γ_{Ms} = 1.33	N_{Rd}	[kN]	4.29

TENSION LOAD TO PULL SCREW HEAD THROUGH FIXTURE

Size			Ø5.5				
Sheet metal thickness	t_N	[mm]	0.40	0.50	0.63	0.75	1.00
Characteristic resistance	$N_{o,Rk}$	[kN]	1.62	2.64	3.56	4.27	4.75
Design resistance γ_{Ms} = 1.33	N_{oRd}	[kN]	1.22	1.98	2.68	3.21	3.57

SHEAR LOAD

Size			Ø5.5				
Sheet metal thickness	t_N	[mm]	0.50	0.63	0.75	1.00	1.25
SUBSTRATE THICKNESS 4.00 mm							
Characteristic resistance	V_{Rk}	[kN]	1.23	1.28	1.35	1.59	2.65
Design resistance γ_{Mc} = 1.33	V_{Rd}	[kN]	0.92	0.96	1.02	1.20	1.99

Product commercial data

Product Code	Quantity [pcs]			Weight [kg]			Bar Codes
	Box	Outer	Pallet	Box	Outer	Pallet	
ONP-55032[1)]	100	1600	38400	0.65	10.4	279.6	5906675330327
ONP-55038[1)]	100	1600	38400	0.73	11.7	310.3	5906675330426

1) ETA-13/0203