

R-ORR-63/70 Zinc flake self-drilling screws for composite panels up to 18mm

Special zinc flake corrosion-resistant coating for highly effective protection



Approvals and Reports

• ETA-17/0518



Product information

Features and benefits

- Hardened screw's thread surface. High quality anti-corrosion coating guarantees resistance of 15 Kesternich cycles.
- 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.
- 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.

Applications

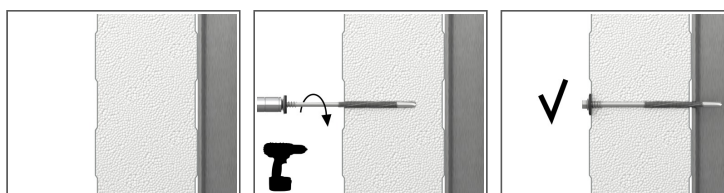
- For fixing of: Composite panels to thick wall hot rolled steel sections

Base materials

Approved for use in:

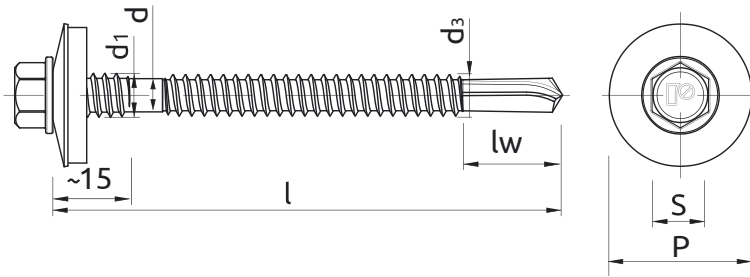
- Structural Steel up to 18mm

Installation guide



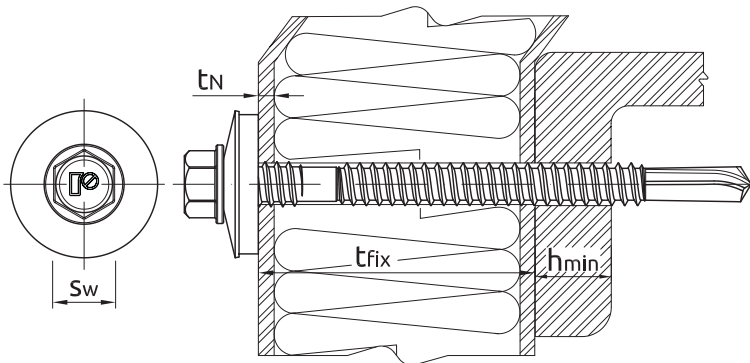
1. Screw must be installed at 90 degrees to substrate.
2. Magnetic driver must be used.
3. Lowest torque setting on impact screwdriver to start.
4. Reduce speed when the washer starts to deform.
5. Use a cordless Impact screwdriver. Note: Never use a power drill.
6. For installation please use screwdriver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

Product information



Size	Product Code	Screw				Fixture	Max. drilling thickness	Washer size
		Diameter		Length	Head size	Max. thickness with washer		
		d	d ₁	l	S	t _{fix}		
[mm]								
Ø6.3/7.0	R-ORR-63/70109A19	6.3	7	109	8	60	18	19
	R-ORR-63/70129A19	6.3	7	129	8	80	18	19
	R-ORR-63/70149A19	6.3	7	149	8	100	18	19
	R-ORR-63/70169A19	6.3	7	169	8	120	18	19
	R-ORR-63/70179A19	6.3	7	179	8	130	18	19
	R-ORR-63/70199A19	6.3	7	199	8	150	18	19
	R-ORR-63/70219A19	6.3	7	219	8	170	18	19
	R-ORR-63/70249A19	6.3	7	249	8	200	18	19
	R-ORR-63/70259A19	6.3	7	259	8	210	18	19
	R-ORR-63/70269A19	6.3	7	269	8	220	18	19
R-ORR-63/70309A19	6.3	7	309	8	260	18	19	

Installation data



Size	Ø6.3/7.0		
Wrench size	Sw	[mm]	8
Min. substrate thickness	h _{min}	[mm]	8
Max. substrate thickness	h _{max}	[mm]	18
Min. spacing	s _{min}	[mm]	30
Min. edge distance	c _{min}	[mm]	10
Screw diameter	d	[mm]	6.3/7.0

Basic performance data

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

Size	TENSION LOAD		SHEAR LOAD	
		Ø6.3/7.0 (A19)		Ø6.3/7.0 (A19)
MEAN ULTIMATE LOAD				
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.4$	[kN]	2.79		1.65
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.5$	[kN]	4.79		2.72
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.63$	[kN]	6.06		3.36
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.75$	[kN]	6.23		4.26
CHARACTERISTIC LOAD				
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.4$	[kN]	1.86		1.10
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.5$	[kN]	3.19		1.81
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.63$	[kN]	4.04		2.24
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.75$	[kN]	4.15		2.84
DESIGN LOAD				
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.4$	[kN]	1.40		0.83
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.5$	[kN]	2.40		1.36
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.63$	[kN]	3.04		1.68
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.75$	[kN]	3.12		2.14
RECOMMENDED LOAD				
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.4$	[kN]	1.00		0.59
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.5$	[kN]	1.71		0.97
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.63$	[kN]	2.17		1.20
Substrate thickness ≥ 8.0 mm; $t_n \geq 0.75$	[kN]	2.23		1.53

Product commercial data

Product Code	Screw	Washer size [mm]	Quantity [pcs]			Weight [kg]			Bar Codes
	Diameter [mm]		Box	Outer	Pallet	Box	Outer	Pallet	
R-ORR-63/70109A19 ₁₎	7	19	100	100	28800	2.2	2.2	669.8	5906675435398
R-ORR-63/70129A19 ₁₎	7	19	100	100	28800	2.5	2.5	737.3	5906675435404
R-ORR-63/70149A19 ₁₎	7	19	100	100	28800	2.7	2.7	818.1	5906675435411
R-ORR-63/70169A19 ₁₎	7	19	100	100	28800	3.1	3.1	909.1	5906675435527
R-ORR-63/70179A19 ₁₎	7	19	100	100	28800	3.2	3.2	937.9	5906675435428
R-ORR-63/70199A19 ₁₎	7	19	100	100	28800	3.4	3.4	1021.5	5906675435534
R-ORR-63/70219A19 ₁₎	7	19	100	100	28800	3.8	3.8	1115.4	5906675435435
R-ORR-63/70249A19 ₁₎	7	19	100	100	11200	4.3	4.3	513.0	5906675438030
R-ORR-63/70259A19 ₁₎	7	19	100	100	11200	4.5	4.5	532.4	5906675435541
R-ORR-63/70269A19 ₁₎	7	19	100	100	11200	4.7	4.7	551.8	5906675438047
R-ORR-63/70309A19 ₁₎	7	19	100	100	11200	5.5	5.5	644.9	5906675435558

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