

R-FFS-K Frame fixing with shortest anchoring zone and collar hex head - zinc plated

Universal frame fixing with collar and hex head screw for many applications



Approvals and Reports

- ETA-18/0818



Product information

Features and benefits

- Shortest anchoring depth - only 40/50 mm
- Quick assembly thanks to the short anchoring zone and the possibility of using a mallet in aerated concrete
- Collared plug for fixing of hard materials (eg. steel)
- Specially-formulated nylon allows best performance installation for use in all base material categories according to ETAG 020 (A, B, C, D)
- Internal plug geometry designed to fit the screw head
- Plug design ensures multi-axis expansion

Applications

- Ventilated facades
- Door and window frames
- Garage doors
- Gates
- Industrial doors
- Facade (substructures made of wood and metal)
- Wall cabinets
- Satellite dishes
- Shelves
- Handrails
- Cable trays

Base materials

Approved for use in:

- Concrete \geq C12/15 (Use category A)
- Cracked concrete \geq C12/15 (Use category A)
- Solid Brick (Use category B)
- Solid Sand-lime Brick (Use category B)
- Hollow Sand-lime Brick (Use category C)
- Hollow Brick (Use category C)
- Hollow Lightweight Concrete Block (Use category D)
- Aerated Concrete Block (Use category D)

Installation guide



1. Drill a hole of required diameter and depth (figure 1 - base material A,B,C,D) or use punch-tool in aerated concrete (figure 2 - base material D)
2. With a hammer, lightly tap the plug through the fixture into hole until fixing depth is reached
3. Tighten the R-FFS screw

Product information

Size	Product Code	Plug		Screw		Fixture	Screw drive
		Diameter	Length	Diameter	Length	Hole diameter	
		d	l	d _f	L1	d _f	
[mm]							
Ø10	R-FFS-N-10K050	10	50	7	59	10	T40
	R-FFS-N-10K060	10	60	7	69	10	T40
	R-FFS-N-10K080	10	80	7	89	10	T40
	R-FFS-N-10K100	10	100	7	109	10	T40
	R-FFS-N-10K120	10	120	7	129	10	T40

Installation data

Size			Ø10	Ø10
Effective embedment depth	h_{ef}	[mm]	40	50
Hole diameter in substrate	d_o	[mm]	10	10
Min. hole depth in substrate	h_o	[mm]	50	60
Min. installation depth	h_{nom}	[mm]	40	50
Min. substrate thickness	h_{min}	[mm]	100	100
Min. spacing	s_{min}	[mm]	70	80
Min. edge distance	c_{min}	[mm]	50	70
Head size	s_w	[mm]	13	13
Screw drive	-	[-]	T40	T40

Basic performance data

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

Substrate		Concrete C12/15	Concrete C16/20	Solid clay brick min 20MPa (eg MZ20/2.0)	Sand-lime brick 40MPa	Sand-lime hollow block min. 20MPa	Perforated ceramic brick HLZB 5MPa	Silicate hollow block min 12MPa (eg KS Ratio Block 8 DF)	Hollow lightweight aggregate concrete 4MPa	Autoclaved aerated concrete AAC 4MPa
CHARACTERISTIC LOAD F_{Rk}										
Ø10, Effective embedment depth 40 mm	[kN]	3.00	4.00	-	-	-	-	-	-	-
Ø10, Effective embedment depth 50 mm	[kN]	-	-	2.00	3.50	4.00	0.60	2.00	0.75	1.50
DESIGN LOAD F_{Rd}										
Ø10, Effective embedment depth 40 mm	[kN]	1.66	2.22	-	-	-	-	-	-	-
Ø10, Effective embedment depth 50 mm	[kN]	-	-	0.80	1.40	1.60	0.24	0.80	0.30	0.75
RECOMMENDED LOAD F_{rec}										
Ø10, Effective embedment depth 40 mm	[kN]	1.19	1.58	-	-	-	-	-	-	-
Ø10, Effective embedment depth 50 mm	[kN]	-	-	0.57	1.00	1.14	0.17	0.57	0.21	0.53

Product commercial data

Product Code	Plug	Screw		Quantity [pcs]			Weight [kg]			Bar Codes
	Diameter [mm]	Length [mm]	Box	Outer	Pallet	Box	Outer	Pallet		
R-FFS-N-10K050 ¹⁾	10	7	59	50	800	19200	0.55	8.8	241.2	5906675470085
R-FFS-N-10K060 ¹⁾	10	7	69	50	600	14400	0.58	6.9	195.6	5906675470207
R-FFS-N-10K080 ¹⁾	10	7	89	50	400	9600	0.60	4.8	145.2	5906675470177
R-FFS-N-10K100 ¹⁾	10	7	109	25	300	7200	0.35	4.2	130.8	5906675470184
R-FFS-N-10K120 ¹⁾	10	7	129	25	300	7200	0.38	4.5	138.0	5906675470191

1) ETA-18/0818