

FIX EXPANSION PLUG WITH HEX HEAD SCREW

Easy-to-install plug with hex head screw giving exceptional performance in solid base materials



Product information

Features and benefits

- Anti-rotation fins prevent spinning during tightening of the screw.
- Engineered grip feature for extra holding power.
- Two-way expansion mechanism provides a strong anchorage in solid base materials.
- Hex head screw for many application scenarios

Applications

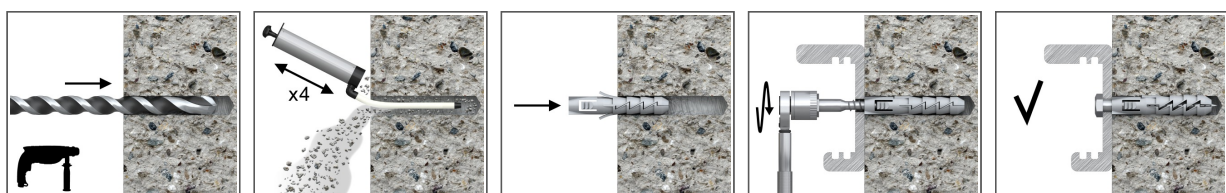
- Lighting
- Skirting / Dado railing
- Shelves
- Trunking
- Cable trays
- Electrical fittings
- Letterboxes

Base materials

Approved for use in:

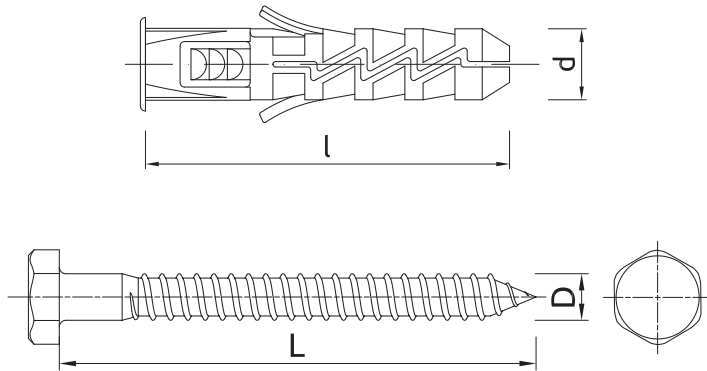
- Concrete
- Solid Brick
- Solid Sand-lime Brick
- Aerated Concrete Block

Installation guide



1. Drill a hole of required diameter.
2. Insert FIX plug into hole and tap home.
3. Insert screw of required diameter into plug through fixture and tighten.

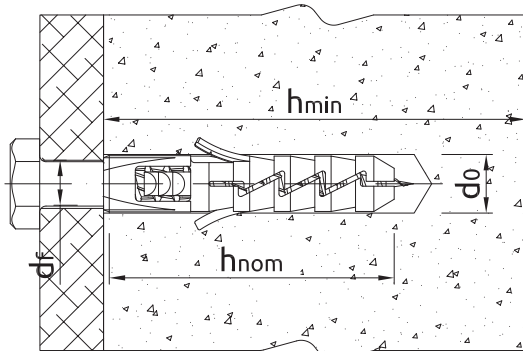
Product information



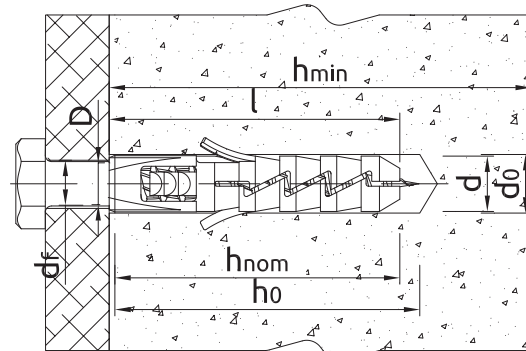
Product dimensions

Size	Product Code	Plug		Fixture		Screw	
		Diameter	Length	Max. thickness	Hole diameter	Diameter	Length
		d	l	t _{fix}	d _f	D	L
[mm]							
Ø12	r-FIX-12/80	12	60	20	9	8	80

Installation data



Installation data



Installation data for hex head screws

Size			Ø10	Ø12	Ø14
Hole diameter in substrate	d ₀	[mm]	10	12	14
Min. hole depth in substrate	h ₀	[mm]	60	70	80
Min. installation depth	h _{nom}	[mm]	50	60	70
Min. substrate thickness	h _{min}	[mm]	80	90	100
Min. spacing	s _{min}	[mm]	50	60	70
Min. edge distance	c _{min}	[mm]	50	60	70
Fixing diameter	d	[mm]	10	12	14

Basic performance data

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

Substrate		Concrete C20/25 - C50/60	Solid clay brick min 20MPa (eg Mz20/2.0)	Sand-lime solid brick	Aerated concrete 600 Mark V
CHARACTERISTIC LOAD					
TENSION LOAD N_{Rk}					
Ø10, Embedment depth 50mm	[kN]	0.40	0.40	0.60	0.90
Ø12, Embedment depth 60mm	[kN]	1.20	1.20	3.00	2.00
Ø14, Embedment depth 70mm	[kN]	1.20	1.20	1.20	1.15

Basic performance data

Substrate		Concrete C20/25 - C50/60	Solid clay brick min 20MPa (eg Mz20/2.0)	Sand-lime solid brick	Aerated concrete 600 Mark V
SHEAR LOAD V_{Rk}					
Ø10, Embedment depth 50mm	[kN]	0.40	0.40	0.60	0.90
Ø12, Embedment depth 60mm	[kN]	1.20	1.20	3.00	2.00
Ø14, Embedment depth 70mm	[kN]	1.20	1.20	1.20	1.15
DESIGN LOAD					
TENSION LOAD N_{Rd}					
Ø10, Embedment depth 50mm	[kN]	0.22	0.16	0.24	0.45
Ø12, Embedment depth 60mm	[kN]	0.67	0.48	1.20	1.00
Ø14, Embedment depth 70mm	[kN]	0.67	0.48	0.48	0.58
SHEAR LOAD V_{Rd}					
Ø10, Embedment depth 50mm	[kN]	0.32	0.32	0.48	0.72
Ø12, Embedment depth 60mm	[kN]	0.96	0.96	2.40	1.60
Ø14, Embedment depth 70mm	[kN]	0.96	0.96	0.96	0.92
RECOMMENDED LOAD					
TENSION LOAD N_{rec}					
Ø10, Embedment depth 50mm	[kN]	0.16	0.11	0.17	0.32
Ø12, Embedment depth 60mm	[kN]	0.48	0.34	0.86	0.71
Ø14, Embedment depth 70mm	[kN]	0.48	0.34	0.34	0.41
SHEAR LOAD V_{rec}					
Ø10, Embedment depth 50mm	[kN]	0.23	0.23	0.34	0.51
Ø12, Embedment depth 60mm	[kN]	0.69	0.69	1.71	1.14
Ø14, Embedment depth 70mm	[kN]	0.69	0.69	0.69	0.66

Product commercial data

Product Code	Plug	Screw	Quantity [pcs]			Weight [kg]			Bar Codes
	Diameter [mm]	Length [mm]	Box	Outer	Pallet	Box	Outer	Pallet	
r-FIX-12/80	12	80	50	600	14400	1.52	18.2	467.8	5906675134109