

# FIX NYLON EXPANSION PLUG WITH COLLAR

Easy-to-install nylon plug with collar giving exceptional performance in solid base materials



## Product information

### Features and benefits

- Flange ensures flush fit to surface.
- 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.
- Small edge distances achievable.

### Applications

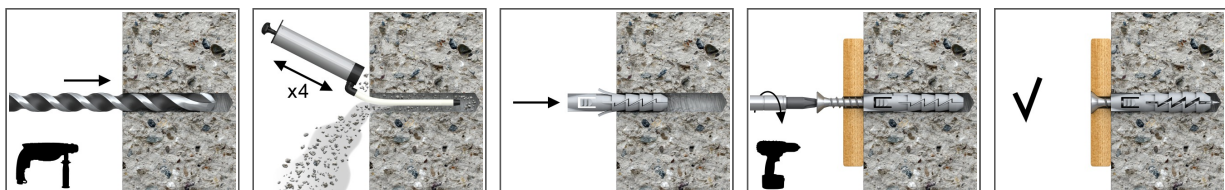
- Pictures
- Lighting
- Skirting / Dado railing
- Shelves
- Trunking
- Cable trays
- Electrical fittings
- Letterboxes

### Base materials

#### Approved for use in:

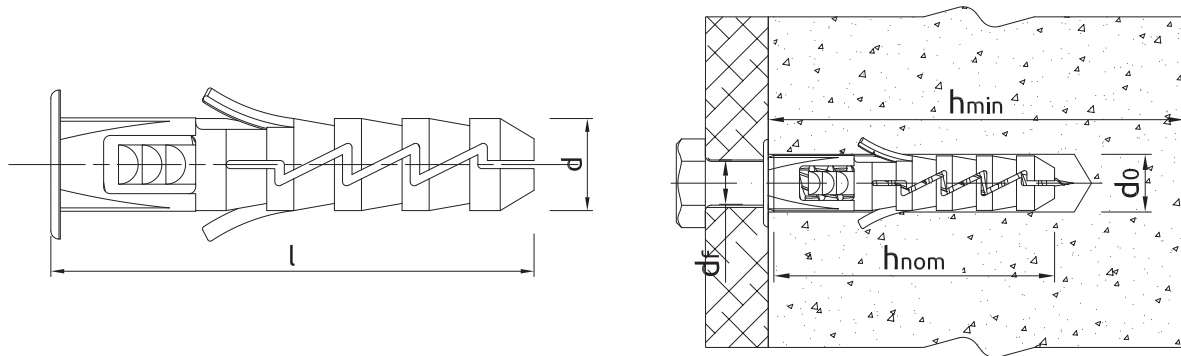
- Concrete
- Solid Brick
- Solid Sand-lime Brick
- Aerated Concrete Block

## 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

Installation data

Size	Product Code	Plug		Screw	Fixture
		Diameter	Length	Diameter	Hole diameter
		d	l	D	d <sub>i</sub>
[mm]					
Ø6	R-FIX-NF-06	6	30	3,5 - 4,0	4,0 - 5,0
Ø8	R-FIX-NF-08	8	40	4,5 - 5,0	5,0 - 6,0
Ø10	R-FIX-NF-10	10	50	5,0 - 6,0	6,0 - 7,0
Ø12	R-FIX-NF-12	12	60	6,0 - 8,0	7,0 - 9,0
Ø14	R-FIX-NF-14-070	14	70	10,0	11,0

## Installation data

Installation data

Size		Ø6	Ø8	Ø10	Ø12	Ø14
Hole diameter in substrate	d <sub>0</sub> [mm]	6	8	10	12	14
Min. hole depth in substrate	h <sub>0</sub> [mm]	40	50	60	70	80
Min. installation depth	h <sub>nom</sub> [mm]	30	40	50	60	70
Min. substrate thickness	h <sub>min</sub> [mm]	80	80	80	90	105
Min. spacing	s <sub>min</sub> [mm]	60	80	100	120	140
Min. edge distance	c <sub>min</sub> [mm]	60	80	100	120	140
Fixing diameter	d [mm]	6	8	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	Hollow lightweight concrete block
<b>CHARACTERISTIC LOAD</b>						
<b>TENSION LOAD N<sub>rk</sub></b>						
Ø6, Embedment depth 30mm	[kN]	0.15	0.15	0.30	0.40	0.40
Ø8, Embedment depth 40mm	[kN]	0.50	0.50	1.20	0.75	-
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	-
<b>SHEAR LOAD V<sub>rk</sub></b>						
Ø6, Embedment depth 30mm	[kN]	0.15	0.15	0.30	0.40	0.40
Ø8, Embedment depth 40mm	[kN]	0.50	0.50	1.20	0.75	-
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	Hollow lightweight concrete block
<b>DESIGN LOAD</b>						
TENSION LOAD $N_{Rd}$						
Ø6, Embedment depth 30mm	[kN]	0.08	0.06	0.12	0.20	0.16
Ø8, Embedment depth 40mm	[kN]	0.28	0.20	0.48	0.38	-
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 $V_{Rd}$						
Ø6, Embedment depth 30mm	[kN]	0.12	0.12	0.24	0.32	0.32
Ø8, Embedment depth 40mm	[kN]	0.40	0.40	0.96	0.60	-
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	-
<b>RECOMMENDED LOAD</b>						
TENSION LOAD $N_{rec}$						
Ø6, Embedment depth 30mm	[kN]	0.06	0.04	0.09	0.14	0.11
Ø8, Embedment depth 40mm	[kN]	0.20	0.14	0.34	0.27	-
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 $V_{rec}$						
Ø6, Embedment depth 30mm	[kN]	0.09	0.09	0.17	0.23	23.00
Ø8, Embedment depth 40mm	[kN]	0.29	0.29	0.69	0.43	-
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	Quantity [pcs]			Weight [kg]			Bar Codes
	Diameter [mm]	Box	Outer	Pallet	Box	Outer	Pallet	
R-FIX-NF-06	6	100	3200	76800	0.10	3.4	110.6	5906675168524
R-FIX-NF-08	8	100	2400	57600	0.19	4.7	141.6	5906675168548
R-FIX-NF-10	10	100	1200	28800	0.31	3.7	119.3	5906675168562
R-FIX-NF-12	12	50	600	14400	0.28	3.4	110.6	5906675134314
R-FIX-NF-14-070	14	25	400	9600	0.18	2.9	99.1	5906675134321