

# Concrete fasteners

## Confast 4-way expansion plug

Made from high quality Polyamide PA 6 for use in solid or hollow building materials. Possible combination with wood screws, chip- board screws.



### 1 SPECIFICATIONS OF INTENDED USE

#### Futures:

- Made from high-quality polyamide PA6
- Pre installation
- Indoor and outdoor applications
- Suitable for use in most kinds of building materials

#### Base materials:

- Concrete
- Clay solid brick
- Clay hollow brick
- Solid light weight concrete
- Autoclaved aerated concrete

#### Applications:

- Filter installation
- Heater installation
- Sanitary installation
- Profiles, holders
- Electric switches
- Rails

### 2 CHARACTERISTICS

Characteristics:

1. 4-way expansion Technology - When turning in the screw, the plug expands in four directions, thus providing a secure anchoring.
2. Highest possible retaining values in the lower and middle load area. Particularly suitable for applications with chipboard screws,
3. rotation resistance stops the plug rotating in the drill hole,
4. reduced assembling time - Special plug geometry allows easy installation.

### 3 INSTALLATION INSTRUCTIONS

Graphic installation guide for Confast 4-way expansion plug Nylon Plug



1. Make the drill hole,
2. clean the drill hole (not necessary with hollow brick),
3. push the 4-way Nylon Plug in the drilled hole (face fixing only),
4. fasten the building material with a screw,
5. fasten tightened fixation.

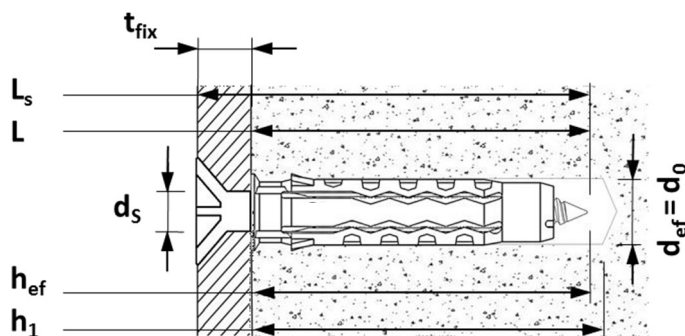
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## 4 INSTALATION DATA IN CONCRETE OR MASONRY

Installation parameters for 4-way Nylon Plug for use in concrete or masonry

### Installation parameters for Confast 4-WAY Nylon Plug

4-WAY Nylon Plug			8	10	12
Plug length	L	[mm]	40	50	60
Outer diameter	$d_0$	[mm]	8	10	12
Drill hole diameter in substrate	$d_{ef}$	[mm]	8	10	12
Drilled hole depth	$h_1$	[mm]	50	60	75
Screw diameter wood/chipboard	$d_s$	[mm]	4,5-6	6-8	8-10
Screw effective anchorage depth	$h_{ef}$	[mm]	45	55	65
Entire screw length	$L_s$	[mm]	$45+t_{fix}$	$55+t_{fix}$	$65+t_{fix}$



## 5 BASIC PERFORMANCE DATA

In recommended resistance for 4-WAY Nylon Plug the safety factor is included

### Recommended tension resistance for 4-WAY Nylon Plug

4-WAY Nylon Plug			8	10	12
Plug length	L	[mm]	40	50	60
Non-cracked concrete $\geq C20/25$	$N_{rec}$	[kN]	0.6	1.0	1.6
Clay solid brick	$N_{rec}$	[kN]	0.5	0.6	0.8
Aerated concrete	$N_{rec}$	[kN]	0.08	0.1	0.15
Clay hollow brick	$N_{rec}$	[kN]	$_{-1)}$	$_{-1)}$	$_{-1)}$

<sup>1)</sup>Derive onsite using chipboard screw

\*The above values refer to a maximum diameter of the wood screw

## 6 IMPORTANT NOTICE

Values in this document are only valued for Confast 4-WAY Nylon Plug. In recommended resistance the safety factor is considered. For combination of tensile loads, shear loads, bending moments as well as reduced edge distances or spacing's (anchor groups) above given values needs to be reduced. The data must be checked by the user under the responsibility of an engineer experienced in anchorage. This is to ensure there are no errors and all data is complete and accurate and complies with all rules and regulations for the actual conditions and application.