

## FRTFZ: Non-through fixing kit for panels and anti-shatter systems



### Features

The FRTFZ fixing kits are designed for the non-through fixing of insulating panels or for anti-shatter systems of brick and cement floors. The kit is composed of the FZTASS anchor, self-tapping screw and low-thickness FRT sealing washer in polymeric material. The FRTFZ is characterized by considerable robustness. The FRTFZ items are available with screws of different lengths to adapt to the different thicknesses of the panels to be fixed and for drilling diameters on the 8 and 10 mm supports.

### Applications

- Insulating panels.
- Anti-shatter systems.

### Base Materials

- Concrete.
- Brick.
- Hollow brick.
- Stone.

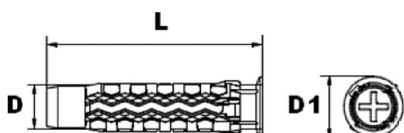
### Materials

Fixing and Washer : Polyamide PA6 grey RAL 7035 compliant with REACH and RoHS directives.

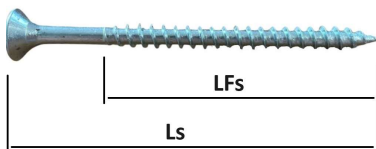
Screw : C1006-1008 steel zinc plated (3-5 µm) Philips bit.

### Installation

- 1 - Check the dimensions of the support (thickness and distance from the edges) to ensure that the dimensions of the dowel are correct.
- 2 - Make the hole of the correct diameter and using the method indicated for the type of support.
- 3 - Drill to a depth sufficient to ensure that the expansion zone of the plug penetrates completely inside the support and does not limit the subsequent installation of the screw.
- 4 - Clean the hole seat thoroughly. The presence of dust and loose materials reduces the sealing performance of the plug.
- 5 - Insert the anchor in the correct position (Installation of the anchor NOT PASSING through the object to be fixed).
- 6 - Position the object to be fixed.
- 7 - Insert the screw with the washer and tighten until the object is securely tightened.



Quota	FZTASS08	FZTASS10
	[mm]	[mm]
D	8	10
D1	11	14
L	40	50
depth of the hole on the support	45	55
drilling diameter	8	10



Code	Fixing	Screw	Washer	Total screw length Ls [mm]	Screw thread length LFs [mm]	Maximum Fixable Thickness [mm]
FRTFZ08X060	FZTASS08	Self-tapping countersunk d5	FRT50MM-DF055	60	53	20
FRTFZ08X070	FZTASS08	Self-tapping countersunk d5	FRT50MM-DF055	70	63	30
FRTFZ08X080	FZTASS08	Self-tapping countersunk d5	FRT50MM-DF055	80	60	40
FRTFZ08X090	FZTASS08	Self-tapping countersunk d5	FRT50MM-DF055	90	60	50
FRTFZ08X100	FZTASS08	Self-tapping countersunk d5	FRT50MM-DF055	100	60	60
FRTFZ08X110	FZTASS08	Self-tapping countersunk d5	FRT50MM-DF055	110	60	70

Code	Fixing	Screw	Washer	Total screw length Ls [mm]	Screw thread length LFs [mm]	Maximum Fixable Thickness [mm]
FRTFZ10X120	FZTASS10	Self-tapping countersunk d6	FRT50MM-DF088	120	70	70
FRTFZ10X130	FZTASS10	Self-tapping countersunk d6	FRT50MM-DF088	130	70	80

**RECOMMENDED loads**

(1kN ≈ 100 kg forza)

RECOMMENDED LOAD (STATIC LOADS)	FRTFZ8X...			FRTFZ10X...		
	Self-tapping countersunk d5		Washer	Self-tapping countersunk d6		Washer
	N racc (pull-out)	V racc (Shear)	FRT50MM-DF055	N racc (pull-out)	V racc (Shear)	FRT50MM-DF088
	kN	kN	kN	kN	kN	kN
Concrete C20/25	0,30	0,15	0,35	0,55	0,22	0,42
Brick (fb≥43MPa)	0,28	0,15	0,35	0,43	0,22	0,42
Hollow brick (fb≥8MPa)	0,26	0,15	0,35	0,35	0,22	0,42

The anchorage holding loads (pull-out) depend on the combination of the type of anchor, screw and support. The washers have a holding load determined by the size of the head of the screw with which it is coupled and by the performance of the material with which it is made. For caution, consider the minimum value of the two values (anchor and washer).

The limit resistance values have been determined through tests carried out in the internal BARTOLUCCI laboratory. The recommended values take into account a suitable safety coefficient in static load conditions.

The resistance capacity of an isolated anchor to bending stresses is poor, therefore its application is not recommended.

In cases where there are situations subjected to dynamic stresses, the application must be tested for each specific situation.

## Notes for correct installation

The installation method significantly influences the sealing performance expressed by a dry fastening system.

**DIAMETER AND EXECUTION OF THE HOLE.** The diameter of the hole for housing a dowel is indicated in the technical data sheet. In the tests carried out, tips for building materials were used that were 0.2 mm larger than the nominal size. Non-orthogonality and poor stability of the drilling operations can cause oscillations during the execution of the hole, which will result in an ENLARGED, CONICAL and/or OVALIZED hole.

**DIAMETER AND LENGTH OF THE SCREW.** Since the expansion is determined by the insertion of a screw inside the dowel, the interference that occurs between this and the internal diameter of the dowel determines the expansion and therefore the sealing action of the dowel. Smaller diameters determine lower expansions and therefore lower axial sealing performance. In terms of shear resistance, performance is generally determined by the screw used.

**QUALITY OF THE SUPPORT.** Since anchors are generally used to fix objects to various building materials, the quality and condition of the materials themselves is fundamental. For example, if the support material is CRACKED or has VOIDS, the holding action of an expansion anchor is compromised.

**CLEANING OF THE SEAT.** The presence of dust and particulate matter negatively influences friction and therefore the adhesion that will occur at the anchor/support material interface. **NON-INTERFERENCE WITH OTHER STRUCTURAL ELEMENTS.** During the drilling phases, it is necessary to pay attention to the point where the hole is made, especially in reinforced concrete. If any reinforcement elements, such as reinforcing bars, are intercepted, this may cause damage to the static and/or dynamic performance of the structure itself.

## Packaging :

Code	Plastic Fixing Dimensions	Screw dimensions	Washer	pieces / box	box / Carton	Carton / pallet	Pieces / pallet
FRTFZ08X060	D8 x 40	d5x60	FRT50MM-DF055	50	15	16	12000
FRTFZ08X070	D8 x 40	d5x70	FRT50MM-DF055	50	15	16	12000
FRTFZ08X080	D8 x 40	d5x80	FRT50MM-DF055	50	15	16	12000
FRTFZ08X090	D8 x 40	d5x90	FRT50MM-DF055	50	15	16	12000
FRTFZ08X100	D8 x 40	d5x100	FRT50MM-DF055	50	15	16	12000
FRTFZ08X110	D8 x 40	d5x110	FRT50MM-DF055	50	15	16	12000

Code	Plastic Fixing Dimensions	Screw dimensions	Washer	pieces / box	box / Carton	Carton / pallet	Pieces / pallet
FRTFZ10X120	D10 x 50	d6x120	FRT50MM-DF088	50	15	16	12000
FRTFZ10X130	D10 x 50	d6x130	FRT50MM-DF088	50	15	16	12000

EURO pallet 80x120 maximum height 1,95 meters.

## Use

Store in the original packaging in a covered and dry place.

## Safety instructions

According to the current European regulations, the articles in question do not require a Safety Data Sheet (Reg.1906/2007/CE - REACH). During application, the use of gloves, dust mask and protective glasses is recommended. Follow the safety regulations in place in the workplace.