

Steel DryFix® 10 Connection Cap



Retractable insert, in fibreglass-reinforced polypropylene, specific to anchor Steel DryFix® 10 stainless steel helical bars. The system allows effective mechanical connection of band and widespread strengthening systems created using the GeoSteel range of meshes on vertical load-bearing walls, arches and domes or for consolidation of brick and cement floor slabs subject to break-away of the bottom layer.

The Steel DryFix® 10 Insert ensures excellent mechanical properties and allows the matrix to be perfectly incorporated into the matrix of band and widespread strengthening systems created using the GeoSteel range of low thickness meshes. Thanks to its chemical composition, polypropylene has a high resistance to impact and to abrasion, excellent thermal resistance and high levels of durability.

PRODUCT STRENGTHS

- Perfect bonding between the Steel DryFix® 10 Insert and the Steel DryFix® 10 stainless steel helical bars
- Excellent compatibility with matrices of the GeoCalce® range
- Low thickness. Perfect incorporation of the connector system DryFix® 10 Insert within the matrix limited thickness of the band and widespread strengthening systems created using the GeoSteel range of meshes
- Excellent collaboration between the connector system DryFix® 10 Insert and the band and widespread strengthening systems created using the GeoSteel range of meshes
- Quick and easy to install
- High durability: as it is made of polypropylene it cannot be damaged by particular substances, also no particular precautions are necessary when handling

AREAS OF USE

Use

- Creation of connections for the band and widespread strengthening systems created using the GeoSteel range of meshes
- Completion of mechanical anchoring for protective systems for floors subject to break-away of the bottom layer, in combination with Steel DryFix® 10
- Binding for coating façades
- Anti-collapse connection for stud walls

INSTRUCTIONS FOR USE

Preparation of substrates

The masonry must be prepared following in the instructions dictated by the PM, if appropriate

Preparation

The polypropylene Steel DryFix® 10 is ready-to-use. The Steel DryFix® 10 Insert is suitable for any length of Steel DryFix® 10.

Application

Dry joining of masonry in brick or tuff using Steel DryFix® 10 should be followed by drilling a pilot bore of an appropriate width and with a length equivalent to the length of the stapling bar that must be installed. In anticipation of the subsequent insertion of the Steel DryFix® 10 Insert on the Steel DryFix® 10 helical bar head, make the hole widening to 14 mm in diameter for the first 30 mm depth of the pilot bore. After placing the Steel DryFix® 10-12 Driver attachment into the SDS Plus drill to engage, put the Steel DryFix® 10 bar inside the pilot bore, tapping with percussion until it is completely inserted; proceed then with the insertion of the Steel DryFix® 10 Insert on the Steel DryFix® 10 helical bar head, by simple screwing. Remove the tabs manually, or by means of a hammer, to facilitate screwing the insert. Finally, grout with appropriate geo-mortar (GeoCalce® G Antisismico, GeoCalce® F Antisismico, GeoLite®) or epoxy mineral matrix (GeoLite® Gel) the end of the bore and completely cover the Steel DryFix® 10 Insert to ensure perfect sealing of the bore and perfect adherence of the bar to the substrate also to the opening.

In order to specifically assess the performance of adhesion/extraction between different supports of the Steel DryFix® 10 bar only, you are advised to contact our technical office. Pull-out test is accomplished on site using a suitable test kit Steel DryFix®.

ABSTRACT

Dry connection system using the Steel DryFix® 10 AISI 304/316 stainless steel helical bar and the Steel DryFix® 10 Insert.

Execution of a dry connection system of masonry made from brick, raw earth, tuff, wood and other material by installing Steel DryFix® 10 AISI 304/316 stainless steel helical bars, installed with Helifix® technology in specified pilot bore in the structure, subject to possible repair of weakened surfaces, by means of the appropriate chuck supplied Steel Dry Fix® 10-12 Driver attachment which is tapped into position. Subsequent insertion of the Steel DryFix® 10 Insert on the Steel DryFix® 10 helical bar head, by simple screwing.

They include: (1) making a pilot bore of a suitable diameter, according to the bar and to the material from which the element to be reinforced is composed; widening of the first 30 mm of the pilot bore depth to 14 mm in diameter; (2) installing the bar inside the bore by means of the appropriate Steel DryFix® 10-12 Driver attachment and possible extension according to the length of the bar; (3) insertion of the Steel DryFix® 10 Insert on the Steel DryFix® 10 helical bar head, by simple screwing; (4) final grouting of the bore and covering of the Steel DryFix® 10 Insert by appropriate material according to the type of substrate. The Steel DryFix® 10 break-fill work bar must guarantee the minimum performance characteristics of the plan, in other words: tensile breaking load > 15.8 kN; shear breaking load > 12 kN; modulus of elasticity > 134 GPa; ultimate elongation at rupture 3.08%; nominal area 14.50 mm². The price is by unit of bar length actually laid.

Delivery and installation of all the materials described above as well as everything else required to finish the job is included. The following are excluded: restoration of degraded areas and repair of the substrate; material acceptance tests; pre- and post-procedure testing, all aids required to perform the work.

TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Tensile strength	$F_{\text{connector}}$	> 1.5 kN
Break warp	$\epsilon_{\text{connector}}$	≥ 50%
Modulus of elasticity when stretched	$E_{\text{connector}}$	1200 MPa
Head diameter	$\varnothing_{\text{head}}$	80 mm
Hole diameter	$\varnothing_{\text{shank}}$	12 mm
Shank length	L_{shank}	25 mm

WARNING

- **Product for professional use**
- abide by any standards and national regulations
- protect from damp and UV light
- after application, the pieces must be protected from UV light, by application of a suitable finishing layer, within 6 weeks of installation
- the product is an item according to the definitions of the EC Regulation No. 1907/2006 and therefore does not require a Safety Data Sheet
- for any other issues, contact the Kerakoll Worldwide Global Service +39 0536 811 516 - globalservice@kerakoll.com

The Rating classifications refer to the GreenBuilding Rating® Manual 2013. This information was last updated in November 2019 (ref. GBR Data Report - 12.19); please note that additions and/or amendments may be made over time by KERAKOLL SpA, for the latest version, see www.kerakoll.com. KERAKOLL SpA shall therefore be liable for the validity, accuracy and updating of information provided only when taken directly from its institutional website. The technical data sheet given here is based on our technical and practical knowledge. As it is not possible for us to directly check the conditions in your building yards and the execution of the work, this information represents general indications that do not bind Kerakoll in any way. Therefore, it is advisable to perform a preliminary test to verify the suitability of the product for your purposes.



KERAKOLL
The GreenBuilding Company

KERAKOLL S.p.a.
Via dell'Artigianato, 9 - 41049 Sassuolo (MO) Italy
Tel +39 0536 816 511 - Fax +39 0536 816 581
info@kerakoll.com - www.kerakoll.com