

FLUECO 77 CABLE played a central role when the Tower of Pisa needed special measures for cables to anchor it.



Technical Data

Physical state:

powder

Colour:

grey

Yield:

You will need 1.5 kg of Flueco 77T per litre of cavity to be filled.

Mix water:

about 6.4 litres per bag

Permissible application temperature:

from +5°C to +35°C

Contained expansion

UNI 8146 - 8147:

> 0.03% 7 days

Distribution: shake table

UNI 7044:

50%

UNI 8998 water exudation (bleeding):

none

Storage:

12 months

Available in:



20-kg bags

FLUECO® 77T



Injectable and pumpable, shrinkage-compensated thixotropic grout, which is bleed-free and chloride-free with superior resistance



DESCRIPTION

FLUECO 77T does not need to be cast, as it is a ready-to-use cement-based product with no residual waste, formulated for making injectable thixotropic grouts for horizontal, angled or overhead sections to protect steel cables and bars subject to increased tensile stress from the "stress corrosion" phenomenon. The injectable thixotropic grout you obtain with FLUECO 77T has superior tensile strength, shrinkage compensation, no water exudation (bleeding). It is pumpable, impermeable and durable with superior adhesion to both steel and concrete. FLUECO 77T does not contain metallic ingredients and is chloride-free.

APPLICATIONS

- Filling sheaths containing post-tensioned steel braided cables or anchor bars subject to increased tensile stress and where using a thixotropic product may be required;
- filling overhead, angled and horizontal cavities, hollow concrete, ground floor loose stone foundation, materials with porous surfaces, etc.;
- filling structural joints in prefabricated elements.

ADVANTAGES

- FLUECO 77T provides complete protection against stress corrosion to post-tensioned steel cables and bars;
- FLUECO 77T does not contain chlorides, sulphates or other substances that are potentially destructive to metal armature;
- FLUECO 77T is metal aggregate-based and free of expansive agents;
- no water exudation (bleeding); the sub-micron size of its ingredients enables complete gap penetration;
- FLUECO 77T is a shrinkage-compensated grout that guarantees complete filling of injected cavities;
- workability at 20°C is about 1.5-2 hours;
- superior tensile strength in both short and long curing stages, and ability to tighten anchor hardware after just 24 hours;
- superior adhesion to both metal and concrete;
- its thixotropic property enables you to easily pump the product into overhead sections without any waste.

GROUT PREPARATION AND INJECTION

Mix the FLUECO 77T grout with a conventional on-site concrete mixer or, better yet, a turbo mixer and, in either case, at low speed.

Pour 90% of the mix water into the concrete mixer then pour in FLUECO 77T without stopping, mixing for at least 5 minutes after pouring in the last bag and making sure that the mix is well blended and clot-free. Add the remaining 10% water and mix for a couple of more minutes before injection.

Hot Climates

- Store FLUECO 77T in a shaded area;
- use cold mix water;
- work in the early morning, stopping during the sunniest hours of the day and work again only in late afternoon, keeping the structure wet for at least 6 hours before returning to work.

Cold Climates

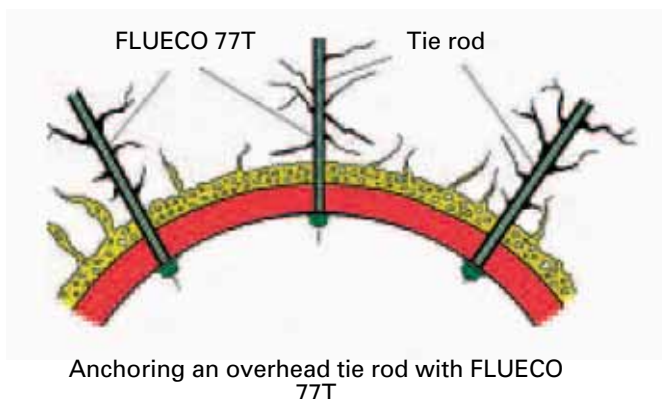
- If possible, store FLUECO 77T in a warm area;
- use water no hotter than 50°C;
- start work in the late morning;
- make sure that the support surface does not freeze.

PACKAGING & STORAGE

FLUECO 77T comes packaged in 20 kg bags. If this product is properly stored in its original packaging in a dry sheltered place, its ingredients will remain intact for one year.

Specification Item

For precision anchoring of the horizontal, angled or overhead tie rods or bars described in this specification, you should use the DRACO Italiana S.p.A. FLUECO 77T ready-to-use powder to produce thixotropic cement-based grout. Your procedure and equipment should comply with the manufacturer's recommendations (DRACO Italiana S.p.A.).



FLUECO® 77T TECHNICAL DATA				
AVERAGE TENSILE STRENGTH: TESTS CONDUCTED ON 4x4x16 SAMPLES ACCORDING TO UNI EN 196-1 32% mix water FLUID CONSISTENCY				
Curing (days)	1	3	7	28
Flexural strength (MPa) UNI EN 196/1	4	5	6	7
Compressive strength (MPa) UNI EN 196/1	20	30	40	50
PULL OUT TESTING Average bond strength (MPa)				
Curing (days)	1	3	7	28
Smooth bar	2.5	3.5	4	4.5
Bar with improved bond	8.5	*	*	*
Process time at 20°C:	about 40 minutes			

Testing has been conducted on 8 mm diameter sections sheathed in 60 mm diameter metal pipes filled with FLUECO 77T.

(*) The bar broke before any unravelling phenomena occurred.

