



Conbextra TA

Conbextra TA is an ultra high performance cementitious grout

Uses

- Conbextra TA is designed for grouting connections between wind turbine towers and their foundation.
- It can be used for on-shore and tidal zones.

Advantages

- High flexural strength and modulus of elasticity without the addition of fibres, enhancing flow characteristics.
- Rapid development of strength enables tensioning and loading within days, aiding rapid tower erection.
- Very high ultimate compressive strength, Class C100/115 (EN206-1:2000)
- High strength and density provides excellent resistance to environmental exposure.
- No segregation or bleeding ensures consistent final physical performance and prevents pump blockages.
- Unique cement chemistry controls heat of hydration enables casting of both thin and thick sections up to 400mm depth in agreed configurations.
- High workability retention >150 mins, facilitates casting of large sections.
- Positive expansion after casting

Description

Conbextra TA is a ready to use cementitious grout, formulated for grouting the structural transition pieces of on-shore wind turbine foundations.

Properties


Stated properties obtained in laboratory conditions and at a temperature of ~+20°C unless otherwise stated.

General properties	
Granulometry	0 - 5 mm
Gap Depth	50 – 250 mm
Mixing water demand	Max. 0,08
Application temperature	2°C – 35°C

Fresh Wet Properties (0,075 water/powder ratio)	
Final set (EN196-3:1996)	< 6 hours
Expansion (EN445)	0 – 1 %
Air Content (EN 1015-7)	~ 2%
Wet Density (EN 12350)	2.4 – 2.5

Mechanical Properties (0,075 water/powder ratio)	
Flexural Strength	
40x40x160 mm prism EN 12190	>8 N/mm ² at 1 day >14 N/mm ² at 7 days >18 N/mm ² at 28 days
Compressive Strength	
100 mm ve 150 mm Cube EN 12390-3	>50 N/mm ² at 1 day >100 N/mm ² at 7 days >130 N/mm ² at 28 days
40x40x160 mm prism EN 12190	>60 N/mm ² at 1 day >110 N/mm ² at 7 days >135 N/mm ² at 28 days
Tensile Splitting Strength	
200x100 mm Cylinder (EN 12390-6)	>8 N/mm ² at 28 days

Standards Compliance

 2404	FOSROC YAPI KİMYASALLARI SAN. VE TİC. A.Ş. Demirciler Organize Sanayi Bölğ. Mah. Haldun Aksoy Cad. No:12/1 Gebkim OSB Dilovası/Kocaeli 20
	2404-CPR-TH1013
TS EN 1504-3 R4 Class Structural Repair Mortar	
DoP Number	TR1504-3/008
Compressive Strength	≥ 130 N/mm ²
Chloride Ion Content	≤ % 0,05
Adhesion	≥ 2.0 N/mm ²
Restricted Shrinkage	≥ 2.0 N/mm ²
Modulus of Elasticity	≥ 35.0 GPa
Capillary Water Absorption	≤ 0.5 kg/m ² h ^{0.5}
Fire Resistance	Class: A1
Dangerous Substance	Compatible with Clause5.4

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Instructions for use

The applicator must follow the Application Method statement provided by Fosroc technical department and be in compliance with any method statement provided by the client or their representative. The details provided below serve as an outline guide.

Preparation

Conbextra TA should be applied by suitably trained, approved and experienced personnel. For more details, please contact your local Fosroc representative.

Foundation surface

The substrate surface must be free from oil, grease or any loosely adherent material. If the concrete surface is defective or has laitance, it must be cut back to a sound base. Bolt holes or fixing pockets must be blown clean of any dirt or debris.

Pre-soaking

Several hours prior to grouting the area of cleaned foundation should be flooded with fresh water. Immediately before grouting takes place, any free water should be removed. Pay special attention to the boltholes or fixing pockets.

Formwork

Formwork, if used, should be constructed to be leak-proof as Conbextra TA is a free flowing grout. This can be achieved by sealing all joints. In some cases, it is practical to use a mortar formwork. The formwork should include outlets for the pre-soaking water.

Mixing

For guidance on equipment and best mixing practice, contact the Fosroc Technical department.

Place the required quantity of clean water (maximum 2 litres per 25kg bag, 40 litres per 500kg bulk bag and 80 litres per 1000kg big bag) into the mixing vessel for each bag to be used. Slowly add the contents to the mixer (note for some mixers, it may be necessary to add the powder to pan before the water). Mix continuously for 4 to 7 minutes, ensuring a smooth, even consistency is obtained. Precise mixing time should be determined by pre-trial and will depend on the mixer type, condition and quantities of powder being mixed.

Note that during the first 2 or 3 minutes consistency will appear drier. Do not add additional water unless expressly instructed to do so.

Placing

For large volumes Conbextra TA should be pumped. Conbextra TA can be placed in thicknesses up to 400 mm in a single pour, depending upon the configuration of the configuration. Any bolt pockets must be grouted with mortar or resin prior to grouting between the substrate and the base plate. Continuous grout flow is essential.

Sufficient grout must be available prior to starting and the time taken to pour a batch must be regulated to the time taken to prepare the next one. The mixed grout should be pumped with the stinger at the bottom of the trench to eliminate the entrapment of air or surplus pre-soaking water. The grout head must be maintained at all times so that a continuous grout front is achieved.

Curing

On completion of the grouting operation, exposed areas should be thoroughly cured. This should be done by the use of Concure curing membrane, and covering with airtight polythene sheeting.

Cleaning

Conbextra TA should be removed from tools and equipment with clean water immediately after use.

Cured material can be removed by mechanically or Fosroc Acid Etch.

Supply	
Conbextra TA	25 kg bag
	500 kg bulk bag
Coverage	
25 kg bag	11,2 Litres
500 kg bulk bag	224 Litres

Storage

Conbextra TA has a shelf life of 12 months if kept in a dry store in sealed bags. If stored in high temperature and high humidity locations the shelf life will be reduced.

Limitations

- Conbextra TA should not be used at ambient temperatures below 2°C or above 40°C. When applying materials below 5°C or above 35°C degrees always consult with local technical team and refer to specific operational instructions provided in the method statement.
- Grout should not be exposed to moving water or rainfall during application and prior to the final set.

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Precautions

Health and Safety

Conbextra TA is alkaline and should not come into contact with skin and eyes. Avoid inhalation of dust during mixing. Gloves, goggles and dust mask should be worn.

If contact with skin occurs, wash with water. Splashes to eyes should be washed immediately with plenty of clean water and medical advice sought.

Fire

Conbextra TA is non-flammable.

Refer to Material Safety Data Sheet for detailed information.

Additional Information

Fosroc manufactures a wide range of complementary products which include :

- waterproofing membranes & waterstops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialised flooring materials

Fosroc additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fosroc's 'Systematic Approach' to concrete repair features the following :

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Fosroc Office.

** Denotes the trademark of Fosroc International Limited*

† See separate data sheet



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Important Note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Service. All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.

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