

REPACEM 80T

Sulphate resistant, fiber reinforced, thixotropic, structural repair mortar (1.0 – 4.0 cm)

DESCRIPTION

REPACEM 80T is a cement based, sulphate resistant, non-shrink, fiber reinforced, impermeable, high initial and final strength, polymer modified, ready to use, thixotropic structural repair mortar.

STANDARDS

Ministry of Public Works Pos. No: 04.613/3b
EN 1504-3/R4 class

APPLICATION FIELDS

- Repair and restoration of all normal, reinforced and pre stressed concrete.
- Bridge and viaducts.
- Marine structures subject to sulphate and chloride attacks.
- Repair and filling of tie-rod, test and cone holes.

ADVANTAGES

- High adherence to concrete and steel.
- Resistant to freeze-thaw cycle.
- Resistant to sulphate and chloride attacks.
- Non-shrink.
- Chloride free.
- Fiber reinforced.
- Waterproof.

APPLICATION

Surface preparation

Concrete surfaces

- All loose and unsound surfaces must be chipped off, cleaned and roughened for better adhesion.
- Surface edges must be cut perpendicularly for a minimum of 1 cm height.
- Any water leakages must be stopped using RAPIDPLUG.
- The surface must be clean and free of curing membranes, oil stains, laitance, dust and any other treatment that may block the adherence of the repair mortar.
- Make sure the surface of the concrete is not effected from carbonation.

Steel reinforcement surfaces

- Corrosion in reinforcement must be cleaned by a metallic brush or sand blasting to free the surface from oil stains, rust, paint and any other laitance that may block the adherence of the product. Reinforcement may be protected with REPACEM 30T corrosion protector and primer. Reinforcement may be changed if necessary.
- The concrete around the reinforcement must be roughened.

Surface wetting

Surface may be saturated with water at least 6 hours before application. At time of application, the surface must be humid and make sure there is no free water on the surface.

Mixing

- Put enough water into a clean bucket and add the powder product mixing slowly and continuously with an electric mixer (300-600rpm) for 2-4 minutes until a homogeneous consistency is achieved.
- Let the mortar rest for 2-3 minutes and re-mix again for 30 seconds before application.

Water quantity:

3.75 – 4.00 Liters : 25 kg of powder product.

Application of the mortar

- Apply REPACEM 80T by using a steel trowel or by using an appropriate spray equipment.
- Each coat should be between 1.0 - 4.0 cm thickness.
- Additional coats may be applied after the previous coat is completely dry.
- The final finishing may be done by spraying little water on the just cured mortar and smoothing with metal, plastic or wood trowel.
- In spray applications, immediately smooth surface to the appropriate thickness if the mortar is applied excessively.

Curing

Immediately after application, the surface must be protected with appropriate curing compounds if the applied surface is subject to direct sunlight, rain or wind.

Usage

1.90 kg / m² / cm

SUGGESTIONS

In high temperature conditions;

- Store the product in cool conditions.
- Use cold water for mixing.
- Apply during morning and afternoon.

In low temperature conditions;

- Store the product in warm conditions.
- Use warm water for mixing.

PRECAUTIONS

- Avoid contact with eyes and skin.
If in contact, immediately wash with plenty of water.
- If accidentally ingested, seek medical attention.
- Wear protective gloves, eyeglasses during application.

PACKING AND STORAGE

REPACEM 80T is packed in 25 kg bags.

If stored at ventilated, covered and dry premises between +5°C / +35°C, shelf life is about 12 months.

MIXING WATER (Do not use water with a pH value below 5.5)

Consistency	Application	Water needed per 25 kg bag	% of water per 25 kg bag
Plastic	Trowel	3.75 – 4.00 liter	% 15-16
Plastic	Spray	3.75 – 4.00 liter	% 15-16

APPLICATION PROCEDURES PER MORTAR THICKNESS

Application	Thickness	
Trowel	1.0 – 4.0 cm per coat (max. 10 cm, 3 coats)	1-2 cm applications; surface must be roughened about 0.5cm and corners must be cut 1 cm in height. >2 cm applications; steel reinforcement may be used. REPACEM 80 T must be minimum 1 cm thickness on top of steel reinforcement. Additional coats may be applied when the previous coat is dry.
Spray	1.0 – 4.0 cm per coat	Use steel reinforcement. Finish the mortar surface with plastic or wood trowel.

MECHANICAL STRENGTHS (TS EN 196)

	% 15 water ratio			
Curing	1 day	3 day	7 day	28 day
Compressive strength (N / mm2)	35	50	60	75
Flexural strength (N / mm2)	6	7	8	9

SETTING TIMES

Temperature	Initial set	Final set
20 °C	3 hours	4 hours
40 °C	50 minutes	3 hours

TECHNICAL SPECIFICATIONS

Density	1900 kg / m3
Density of the mix	2230 kg / m3
Workability time (pot life)	30 minutes
Application temperature	+5°C / +35°C
Service temperature	-30°C / +400°C
Bleeding	None (UNI 8998)
Capillary water absorption	≤0.5kg.m ⁻² .hour ^{0.5}
Freeze-thaw cycle	-18 / + 5° C , 300 cycles , % 5 (ASTM C666)
Expansion	7 days ; > % 0.03 28 days ; > % 0.035 (UNI 8146-8147)
Adhesion to steel	~ 14 N / mm2 (straight) , ~ 30 N / mm2 (perforated)
Adhesion to concrete	>2.0 N / mm2 (TS EN 1542)
Modulus of elasticity	>20.000 N / mm2 (28 days)
Traction resistance	> 3.6 N / mm2 (28 days)
Chorides	None
Resistance to sulphates	Complete resistance (ASTM C88)
Resistance to oil	Complete resistance; 40 °C , 60 day testing

REPACEM 80T / 15.02.2011 / Rev.4



The technical and application information given rely on our best possible scientific and practical knowledge. Draco is responsible only on the quality of the product. Draco does not assume any responsibility due to improper storage, use and application of the product. Most recent dated versions of this technical sheet invalidates this version.

Draco Construction Chemicals Ltd. Co.

İstanbul Deri Organize Sanayi Bölgesi, Tabakhane caddesi no:16, Tuzla İstanbul 34957 Türkiye
Tel: +90.216.5910780 Fax: +90.216.5910781

www.draco.com.tr
info@draco.com.tr