

DRYMORTAR

 **DRYKOS**

ONE COMPONENT CRYSTALLINE WATERPROOFING MORTAR, FIBER REINFORCED, FOR STRUCTURAL REPAIR AND RESTORATION OF CONCRETE

**CHLORIDES FREE
COMPLIANT WITH EN 1504-3 STANDARD
CLASS R4**



PRODUCT DESCRIPTION

DRYMORTAR is a one-component, thixotropic, fiber-reinforced, crystalline waterproof mortar. It is composed of water-soluble additives and hydraulic binders specifically designed to provide excellent structural stability. DRYMORTAR is formulated specifically for the structural rehabilitation of degraded concrete.

DRYMORTAR functions with a crystalline complex that shields it from water infiltration and chemical aggressions originating from any direction. The formation of these crystals can be reactivated over time when new water penetrates the applied concrete.

FEATURES

- Fibre-reinforced
- Waterproof and moisture-resistant
- Excellent adhesion to the cementitious substrate
- High resistance to chloride ion penetration (marine environments or de-icing salts)
- Certified for use with potable water

AREAS OF APPLICATION

- Suitable for structural restoration of concrete
- Suitable for repairing cracks, honeycombs, and any damages in concrete
- Sealing of voids of spacers of formwork
- Repair of water treatment plants, drinking water tanks, wells, and concrete pipes
- Tunnels and marine structures
- Sealing mortars for pipe passages in concrete

SURFACE PREPARATION

Remove loose parts through high-pressure water cleaning or sandblasting. Expose and clean corroded steel bars, passivate them. Eliminate dust and residuals through water cleaning.

PRODUCT PREPARATION

Keep around two-thirds of the necessary water in a clean bucket. Next, add DRYMORTAR to the bucket and start mixing, followed by the remaining water. Continue mixing until a uniform paste is achieved, free from lumps, with the plastic mortar-like consistency. It's important to note that the mixing water should be roughly 16% of the powder's weight, equivalent to approximately 4 liters of water for a 25 kg bag.

PRODUCT APPLICATION

Saturate with water until reaching the "saturated surface dry" condition. Adequate roughening of the surfaces through grinder, sandblasting, etc., is always necessary to achieve maximum adhesion values to the substrate. The application of DRYMORTAR can be done, depending on the type of intervention, by hand, with a trowel, or by spraying with a suitable spraying machine. Complete finishing operations quickly. Recommended application thickness: > 7 mm and < 40 mm; greater thicknesses should be applied in multiple layers, and it is advisable to use suitable metal reinforcements (welded mesh, cages, etc.) anchored to the substrate. By adding fine sand or small-sized gravel, mortars or concretes can be obtained for application in deep cavities to be consolidated.

CONSUMPTION

Approximately 18.5 kg/m² per centimetre of thickness

LIMITATIONS

DRYMORTAR exhibits relatively quick setting and hardening times. Therefore, it is recommended to prepare a limited quantity

and use it within a short time frame, typically around 30 minutes. Adding water when the product is in the setting stage can lead to a decrease in performance and effectiveness.

WARNING

Do not apply DRYMORTAR in case of rain or when the ambient temperature is below 4°C or above 30°C. In particular, in very hot and windy climates, pay more attention to curing by spraying water or covering the repaired parts with polyethylene sheets, if necessary, treating them with an anti-evaporation product. Tanks and reservoirs can be filled at least 3 days after the application of DRYMORTAR.

HEALTH AND SAFETY

DRYMORTAR contains chemicals that can cause skin irritations. It is recommended to use gloves, goggles, and a mask when handling the product and follow normal precautions for chemical handling. For further and complete information regarding safe product usage, consult the Safety Data Sheet.

STORAGE

The product must be stored in a dry place. In intact and sealed packaging, the product can be stored for 12 months.

PACKAGING

The product is available in 25 Kg and 10 kg buckets.

TECHNICAL DATA

Performance features	Test methods	Characteristics in accordance with EN 1504-3 for R4 class mortars
Compressive Strength after 1 hour	UNI EN 12190	25 N/mm ²
Compressive Strength after 1 day	UNI EN 12190	50 N/mm ²
Compressive Strength after 28 days	UNI EN 12190	≥ 65 N/mm ²
Compressive Strength after 90 days	UNI EN 12190	≥ 70 N/mm ²
Flexural Strength after 1 day	UNI EN 196/1	5 N/mm ²
Flexural Strength after 28 days	UNI EN 196/1	> 9.0 N/mm ²
Resistance to carbonation	UNI EN 13295	0.5 mm
Fire resistance	EN 13501-1	A1
Adhesion to concrete (shear test)	UNI EN 1542	≥ 2 N/mm ²
Density	UNI EN 1015-6	2220 kg/m ³
Determination of thermic compatibility	UNI EN 13687-1	≥ 2 N/mm ²
Slip resistance	UNI EN 13036-4	61.0 mm
Expansion with air curing for 1 day	UNI 8147	> 0.01 %
Water Absorption Test	UNI EN 13057	0.30 kg·h ^{0.5} /m ²

Chloride content	UNI EN 1015-17	< 0.01 %
Elastic module	UNI EN 12190	26000 N/mm ²

OTHER DATA

Ph	> 12
Water/Drymortar ratio	< 0.37

