

DRYKOTE ULTRA

 **DRYKOS**

**WATER BASED PENETRATION
CRYSTALLINE TREATMENT FOR
WATERPROOFING AND PROTECTING
CONCRETE, REPELLENT**

CHLORIDE-FREE

COMPLIANT WITH STANDARD EN 1504-2



PRODUCT DESCRIPTION

DRYKOTE ULTRA is a single-component cement-based product with crystalline technology. It includes water-soluble additives and hydraulic binders, purposefully designed for rehabilitating and waterproofing concrete structures. Its crystalline reactions lead to the formation of insoluble crystalline complexes that seal the capillary porosities of the concrete, preventing the penetration of water and moisture from any direction. The crystalline action remains active over time within the concrete, and on the surface, DRYKOTE ULTRA combines with atmospheric CO₂ to create an excellent repellent effect.

FEATURES

- Particularly suitable for degraded or old concrete
- Can be applied from both the positive and negative sides relative to isostatic pressure and can withstand high pressures after application
- Permanent waterproofing
- High resistance to chemical aggressions (between pH 3 and 11)
- Heals micro cracks up to 0.5 mm in the presence of water or moisture
- Allows the passage of water vapour
- Enables waterproofing interventions with a rapid drying effect
- Enhances the durability
- Does not contain resins or elastomeric products
- Certified for use with potable water

GREEN TECHNOLOGY

Drykote Ultra is an eco-friendly product that uses cement chemistry to perform its function, thus allowing for future recycling and avoiding the use of any external layer or coating materials that would require a high disposal cost.

AREAS OF APPLICATION

- Concrete water tanks and reservoirs
- Concrete basins
- Wastewater treatment plants
- Concrete pipelines
- Swimming pools
- Roof slabs
- Elevator pits
- Water-infiltrated underground structures
- Tunnels and subways

SURFACE PREPARATION

The concrete surface must be cleaned before application using high-pressure water cleaning. Any areas contaminated by oils, fuels, grease, or pre-treatments must be cleaned with suitable products before application. Any loose parts must be repaired with appropriate mortars.

The substrate must be fully saturated with clean water and allowed to dry until the surface remains moist. Excess water on stagnant areas must be removed before applying the product.

MIXING

Mix the product with clean water until a desired consistency (slurry) is achieved without the formation of lumps. Mix 25 kg of product in 6.9/7.5 liters of clean water at low speed. Allow the slurry to rest for 2/3 minutes. Do not mix more material than can be applied within 20 minutes.

CONSUMPTION

For brush application: 1.0 kg/m² in a single coat

For spray application: 0.8/1.0 kg/m² in a single coat (the ratio may slightly vary depending on the type of machine used).

APPLICATION

DRYKOTE ULTRA can be applied with a rough brush or a professional spray machine. Prior to application, the substrate must be fully saturated with clean water and allowed to dry until the surface remains moist. Excess water on stagnant areas must be removed before applying the product. In very hot climates, spray water on the surface even during the application of the product. Following application, protect the freshly coated DRYKOTE surface from rain and frost for a minimum of 48 hours to prevent washout

POST APPLICATION TREATMENT

It's essential to wait for a minimum of 18 days before allowing the treated surface to come into contact with liquids in tanks or pools.

LIMITATIONS

Do not apply DRYKOTE ULTRA in rainy conditions or when the ambient temperature is below 4°C. If you are applying the product outdoors and it starts to rain, suspend the application.

WARNINGS

- Do not apply DRYKOTE ULTRA on loose, weak, or fractured substrates.
- Do not apply the product on dry surfaces, as it would prevent the product components from penetrating and developing crystalline formation in depth.
- For effective waterproofing, the concrete thickness must be greater than 8 cm.
- Do not add water after the prepared mixture begins to harden.

HEALTH AND SAFETY

DRYKOTE ULTRA contains chemicals that can cause skin irritation. It is recommended to use gloves and goggles when handling the product and follow precautions for handling chemicals. For further and complete information about the safe use of the product, consult the Safety Data Sheet.

STORAGE

The product must be stored in dry places and kept in its sealed packaging. The product must be used within 12 months from the manufacturing date.

PACKAGING

The product is available in 25 kg buckets.

TECHNICAL DATA

Test description	Test methods	Requirements in accordance with EN 1504-2	DRYKOTE
Compressive Strength	UNI EN 12190	≥ 25 Mpa (after 28 days))	27,1Mpa
Adhesion Strength	UNI EN 1542	≥ 1,5 Mpa	1,7 Mpa
Chloride ion content	UNI EN 1542	≤ 0,05%	≤ 0,05%
Elastic Module	UNI EN 13412	≥ 15 Gpa	28,5 Gpa
Thermal compatibility	UNI EN 13687-4	Forza di legame dopo 30 cicli ≥ 1,5 Mpa	1,8 Mpa
Absorption Test	UNI EN 13057	≤ 0,50 kg·m ⁻² ·h ^{-0,5}	≤ 0,23 kg·m ⁻² ·h ^{-0,5}
Fire resistance	UNI EN 13501-1	Euroclass	A1
Water Permeability Test	UNI EN 12390-8	No requirement	More than 50% reduction in penetration compared to untreated sample
Potability test	D.Lgs.31-2001	Compliance with chemical parameters	Eligible
Rapid chloride penetration	ASTM 1202-08	comparison of values	Reduction of penetration by 70% compared to the mixture without additives
High pressure water permeability	U.S. Army CRD C48-92	Performance verification	High water resistance and self-sealing properties



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