

DRYSEAL ULTRA

**DEEP PENETRATING WATER BASED CRYSTALLINE
LIQUID FOR WATERPROOFING AND PROTECTING CONCRETE
REPELLENT, READY TO USE, CHLORIDE FREE**

COMPLIANT WITH NORM EN 1504-2



PRODUCT DESCRIPTION

DRYSEAL ULTRA is a multifunctional water-based product that combines crystalline and repellent technologies. Its protective properties stem from three chemical principles, that combine repellent technology, impregnating technology (hydrated crystals), and deep-penetration waterproofing technologies (hygroscopic crystals).

DRYSEAL ULTRA effortlessly penetrates the concrete pores and capillaries thanks to its low viscosity, through a chemical reaction with moisture and the by-products of concrete hydration, it establishes a remarkable protective system. This system is composed by a chemical reaction that generates cortical repellency along with two crystalline formations that penetrate, one sealing the cortical part of the concrete, the other waterproofing it in depth and restoring it, thus enhances its durability. The latter, in fact, essentially depends on the porosity and size of the pores, through which aggressive gases and chemical agents conveyed by water and humidity can penetrate and reach the reinforcement rods, causing the concrete to deteriorate.

A single application of DRYSEAL ULTRA is sufficient to form an internal, non-film barrier that waterproofs the concrete, protecting it from water penetration, aggressive chemical agents such as chlorides, sulfates, CO₂, alkali-silica reaction (ASR), and damages caused by freeze-thaw cycle. DRYSEAL ULTRA reactivates within the concrete mass whenever there is presence of moisture, ensuring a continuous protective mechanism.

FEATURES AND ADVANTAGES

- It is water-repellent, resistant to fuels and mineral oils
- It waterproofs from any direction (both positive and negative)
- It is permanent and always active
- It withstands pH levels from 3 to 11 on continuous contact
- It has high resistance to chloride ion penetration and sulfates
- It enhances the durability of concrete structures in highly aggressive environments such as marine, wastewater treatment plants and when de-icing salts are used
- It has an anti-dust function.
- It does not alter the appearance of the substrate.
- It improves resistance to freeze-thaw cycles.
- It seals cracks up to 0.5 mm in width.
- It prevents the growth of moss, algae, and other types of vegetation.
- It is water-based and non-toxic,
- It does not contain VOCs and is REACH certified
- It is certified for use with potable water.

GREEN TECHNOLOGY

DRYSEAL ULTRA is an environmentally friendly product that uses the chemistry of concrete to perform its function, thus allowing for future recycling and avoiding the use of external layers or coating materials that would require high disposal costs. The use of DRYSEAL ULTRA therefore contributes to acquiring LEED credits.

AREAS OF APPLICATION

- Infrastructure
- Bridges, viaducts
- Tunnels
- Dams
- Marine structures
- Ports and docks
- Wastewater treatment plants

- Sewage systems
- Concrete protection in chemically aggressive environments
- Indoor and outdoor concrete floors
- Urban concrete elements
- Architectural concrete (face concrete)

SURFACE PREPARATION

Application to new concrete: It is advisable to brush the surface to be treated and blow compressed air over it to remove dust and all loose parts. Then wash the surface with a high-pressure cleaner and apply DRYSEAL ULTRA when dry.

Application to existing concrete: Remove grease stains, oils, etc. by removing them with suitable products. Then follow the same procedure as for new concrete.

PRODUCT PREPARATION

Shake the DRYSEAL ULTRA can to eliminate any product deposits. DRYSEAL ULTRA is supplied ready for use and should not be diluted.

DOSAGE

It is recommended to apply DRYSEAL ULTRA in a dosage of 1 liter per 5 square meters.

APPLICATION

DRYSEAL should be applied evenly in a single coat by simply spraying it with a low pressure pump or using a brush. The surface must be completely covered by the product. DRYSEAL ULTRA can be applied as a second coat over DRYSEAL: the combination of the two products enhances the restoring effect, increasing the pH of deteriorated concrete and stopping/retarding the process of oxidation of reinforcement bars.

TREATMENT AFTER APPLICATION

The concrete surface treated with DRYSEAL should dry for 1 hour at around 24°C before use; at lower temperatures, it may require an additional 1-2 hours. It is essential to wait 7 days before filling tanks or pools with water.

LIMITATIONS

DRYSEAL should not be applied if the surface temperature drops below 5°C. The concrete on which the product is applied must be at least 7 days old.

EFFECTS AFTER THE APPLICATION

The concrete treated with DRYSEAL ULTRA may darken immediately after application but will return to normal when the product dries. If excess product is sprayed, white halos may form as the surface dries; in this case, simply wash the surface with water to remove the halos.

WARNINGS

Do not apply DRYSEAL ULTRA outdoors if rain is expected within 2 hours; if you are applying the product outdoors and it begins to rain, suspend the application. Wait for the surface to dry before resuming work. Do not apply the product on the parts already treated.

HEALTH AND SAFETY

DRYSEAL ULTRA contains chemicals that may cause skin irritation. It is recommended to use gloves, goggles, and a mask when applying the product and follow the precautions for handling chemical products. For further and complete information on the safe use of the product, it is recommended to consult the Material Safety Data Sheet.

STORAGE

DRYSEAL should be stored at room temperature. Cold temperatures could cause crystallization of the product; in such cases, simply shake it and bring it to a warmer environment. Store it in its sealed container and use it within 12 months. The product must not freeze, as this could cause damage.

WARRANTY

If the product is found to be defective, Drykos's liability is limited to replacing the product itself. As Drykos has no control over the user's application of the product, it is the user's responsibility to ensure that the product corresponds to its intended use, assuming all risks and responsibilities in this regard.

PACKAGING

The product is available in 25 liter cans and 1,000 liter IBC tanks

TECHNICAL DATA

Performance features	Test methods	Requirements in accordance to EN 1504-2	DRYSEAL ULTRA
Resistance to freeze-thaw cycles	UNI EN 13581	Volume loss after 20 cycles	After 25 cycles
Water absorption and resistance against alkalis	UNI EN 13580	Water absorption < 7,5% of reference sample Water absorption after immersion in alkali solution < 10 % of reference sample	Water absorption: 3,5% Resistance to alkalis: 6,6%
Penetration depth	UNI EN 14630	Classe 1: < 10 mm Classe 2: ≥ 10 mm	Classe 2: 17,8 mm
Drying speed	UNI EN 13579	Classe 1: > 30% Classe 2: > 10%	Classe 1: 38,1 %
Water Permeability Test	UNI EN 12390-8	5 bars for 72 hours	56 % reduction compared to reference sample
Rapid chloride penetration Test	ASTM 1202-08	Comparison of values	60 % reduction compared to concrete without additives
Potability test	NSF 61	Compliance with chemical parameters	Compliant

