

DRYSEAL

**DEEP PENETRATING CRYSTALLINE
WATERPROOFING LIQUID FOR CONCRETE,
READY TO USE -CHLORIDE-FREE**

COMPLIANT WITH EN 1504-2 STANDARD

DRYKOS



PRODUCT DESCRIPTION

DRYSEAL is a water-based, single-component liquid waterproofing solution that employs crystalline technology. Applied via spray, it deeply penetrates concrete and cementitious surfaces to effectively address moisture issues, sealing micro cracks up to 0.5mm, and providing protection against chemical aggression.

Upon application, the product enters the pores of the concrete and initiates a chemical reaction with moisture and cement hydration byproducts. This process leads to the development of needle-like crystalline structures, which efficiently seal pores and micro-cracks. Consequently, it restores the integrity of the substrate and enhances the durability of the concrete. The durability of this protective effect depends on the porosity of the matrix, which in turn affects its ability to withstand chemicals and endure the challenges of freeze-thaw cycles. The substantial reduction in permeability significantly enhances its resilience against these factors.

A single application of DRYSEAL is adequate to initiate its healing and waterproofing capabilities. Furthermore, DRYSEAL reactivates within the concrete whenever there is new moisture present, ensuring a continuous protective mechanism. By applying a first coat of DRYSEAL followed by a second coat of DRYSEAL ULTRA, a comprehensive protection system is established. This not only retains the attributes of DRYSEAL but also ensures complete cortical sealing of pores and imparts surface repellency to concrete, ultimately extending its lifespan and reducing the need for frequent maintenance.

FEATURES AND ADVANTAGES

- Provides deep waterproofing within concrete mass: The product's high penetration capacity, combined with moisture presence, triggers the formation of crystalline structures.
- Waterproofs from any direction (both positive and negative sides).
- Permanent and always active.
- High resistance to chloride ion penetration (marine environments or de-icing salts).
- Does not alter the substrate's appearance.
- Improves resistance to freeze-thaw cycles.
- Seals cracks up to 0.5mm.
- Allows for water vapor transmission.
- Does not contain resins or elastomeric products.
- Water-based, non-toxic, and environmentally safe.
- Certified for use with potable water.

GREEN TECHNOLOGY

Drykote 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. The use of DRYSEAL by Drykos therefore contributes to acquiring LEED credits.

AREAS OF APPLICATION

- Tunnels and underpasses.
- Roof decks.
- Water treatment plants.
- Tanks, pools, and foundations.
- Wastewater treatment facilities.
- Sewer systems.
- Multi-story parking structures.
- Bridges and viaducts.
- Ports and docks.
- Marine structures

SURFACE PREPARATION

The concrete surface must be thoroughly cleaned before applying the product. It is recommended to brush the surface and use compressed air to remove dust and loose particles. Subsequently, wash the surface with a pressure washer. If there are areas contaminated with oil, fuel, grease, or pre-treatment layers, they must be cleaned prior to application using suitable products. If no moisture is present from the negative side or the floors are not in contact with the ground, it is recommended to saturate the surfaces with water, and excess water should be removed 24 hours before applying the product.

PRODUCT PREPARATION

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

DOSAGE

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

APPLICATION

DRYSEAL should be applied in a single, uniform pass, either by spraying or roller. For large surfaces, a low-pressure sprayer is recommended. The entire surface should be covered with the product.

AFTER-APPLICATION TREATMENT

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.

EFFECT AFTER APPLICATION

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

WARNINGS

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

HEALTH AND SAFETY

DRYSEAL contains chemicals that may cause skin irritation. It is recommended to use gloves, goggles, and a mask when applying the product and follow precautions for handling chemical products. For further and comprehensive information regarding safe product usage, consult the 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.

TECHNICAL DATA

Test description	Test methods	Requirements in accordance with EN 1504-2	DRYSEAL
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% Resistance to alkalis < 10%	Water absorption 3,5% Resistance to alkalis 6,6%
Penetration depth	UNI EN 14630	Class 1: < 10 mm Class 2: ≥ 10 mm	Class 2: 17,8 mm
Drying speed	UNI EN 13579	Class 1: > 30% Class 2: > 10%	Class 1: 38,1 %
Fire resistance	UNI EN 13501-1	Euroclass	A1
Water Permeability Test	UNI EN 12390-8	No requirements	53% reduction compared to concrete without additives (*)
Potability test	D.Lgs.31-2001	Compliance with chemical parameters	Eligible
Rapid chloride penetration Test	ASTM 1202-08	Comparison of values	110% increase compared to the mixture without additives



Green Building Council Italia