



Drykote

High-penetration crystallizing cementitious slurry for waterproofing concrete structures

Drykos® **Drykote** is a single-component cementitious crystallizing product, formulated with hydraulic binders and water-soluble additives specifically developed for the restoration and waterproofing of concrete structures. Upon contact with water and moisture present in the substrate, Drykos® **Drykote** activates a crystallization process that generates **insoluble crystalline complexes**, capable of sealing the capillary porosity of the concrete and preventing the penetration of water and moisture, both under positive and negative pressure. The crystallizing action **reactivates over time** in the presence of new moisture, ensuring durable and continuous protection. Applied as a **slurry** on the concrete surface, the product penetrates the cementitious matrix through the migration of its active components, waterproofing, restoring, and protecting the substrate in depth.

CHARACTERISTICS

Drykos Technology

Drykos® crystallizing technology is distinguished by its efficiency through a chemical reaction with moisture and the by-products of cement hydration. This process generates, within the pores, capillaries, and cavities of the concrete, an insoluble crystalline complex that prevents water penetration. This complex becomes an integral part of the concrete mass, ensuring its resistance to water and aggressive chemical agents from any direction, promoting restoration and protection, imparting waterproof properties, and increasing its durability and service life.

Certifications



EN 1504-2

Products and systems for the protection and repair of concrete structures - Concrete surface protection systems



POTABLE WATER

Coating suitable for contact with water intended for human consumption in accordance with Ministerial Decree 174/2004 and Legislative Decree 18/2023.



DRYKOS S.r.l.

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Main characteristics

- Particularly suitable for degraded or aged concrete, with deep restorative action
- Active waterproofing under both positive and negative pressure, resistant even to high hydrostatic pressures
- Permanent crystallizing action, reactivatable in the presence of moisture
- High resistance to chemical attack (pH range 3–11) and chloride ion penetration
- Self-healing of microcracks up to 0.5 mm in the presence of water or moisture
- Permeable to water vapor, promotes substrate breathability
- Rapid moisture arrest and drying effect
- Increased durability of treated structures
- Formulation free of resins and elastomers, cementitious-based
- Certified for suitability for contact with drinking water

Fields of use

- Restoration and waterproofing of degraded or aged concrete structures
- Foundations, slabs, and retaining walls
- Basements, cellars, and technical rooms
- Tunnels, underpasses, and underground infrastructure works
- Concrete tanks and reservoirs, including for drinking water
- Structures subject to high hydrostatic pressure (positive and negative pressure)
- Civil, industrial, and infrastructure works in chemically aggressive environments
- Waterproofing interventions requiring moisture arrest and drying

SPECIFICHE TECNICHE

Packaging

25 kg bucket

Color

Gray.

Appearance

Powder.

Shelf life

12 months from production date.

Storage conditions

Store properly in the original, sealed, intact packaging, protected from moisture and direct sunlight exposure, at temperatures between +5°C and +35°C.

APPLICATION DATA

Theoretical consumption

0.8 kg/m² per coat

Coverage

~ 30 m² per package per coat

Thinner

Water.

Application temperature

Minimum +5°C | Maximum +35°C



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APPLICATION INFO

Substrate preparation

Before applying Drykos® **Drykote**, the concrete surface must be thoroughly prepared to ensure proper adhesion and treatment effectiveness.

The substrate must be cleaned using high-pressure water jetting to remove dust, surface residues, loose particles, and contaminants. Any areas contaminated by oils, greases, fuels, release agents, or previous treatments must be pre-cleaned using suitable detergents or cleaning systems.

Portions of degraded or loose concrete must be removed and restored with repair mortars from the *Drykos® Repair* line compatible before product application.

Subsequently, the substrate must be saturated with clean water until complete saturation and allowed to dry to a damp surface condition free of standing water (SSD condition – Saturated Surface Dry). Any accumulations or areas with stagnant water must be eliminated before application.

In particularly hot or windy weather conditions, it is recommended to spray water on the surface even during application to maintain the proper moisture level of the substrate.

Product preparation

Drykos® **Drykote** must be mixed with clean water until a homogeneous slurry is obtained, free of lumps and with a consistency suitable for application.

Pour the contents of the 25 kg bag into 8.0–8.75 liters of clean water, mixing with a mechanical agitator at low speed until a uniform mixture is achieved. After mixing, allow the slurry to rest for 2–3 minutes, then briefly remix before use.

Prepare only the amount of material that can be applied within 20 minutes to ensure proper product performance and avoid premature hardening of the mixture.

Application

Drykos® **Drykote** can be applied using a stiff-bristle brush or suitable spray equipment, ensuring uniform and continuous distribution of the product on the surface to be treated.

Application must be carried out in at least two coats, applying the second coat perpendicular to the first to ensure complete, uniform coverage without discontinuities. The second coat must be applied when the first is still fresh but not completely dry, approximately 4–6 hours later, depending on environmental conditions and substrate absorption.

After application, the treated surface must be misted with clean water to promote proper curing of the coating and active penetration of the product into the substrate. Misting should be repeated approximately 3–4 times per day for the first 3 days following application. In very hot, dry, or windy conditions, it may be necessary to increase the frequency of wetting, while avoiding washout or surface ponding.

The fresh coating of Drykos® **Drykote** must be protected from rain, frost, washout, and excessively rapid drying for at least 48 hours following application. In the case of tanks, pools, reservoirs, or surfaces intended for liquid containment, wait at least 18 days before commissioning or permanent contact with water or other liquids.

Tool cleaning

Clean tools with water immediately after use.



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Other indications

- Do not apply in case of rain or when the ambient or substrate temperature is below 5°C.
- In case of outdoor application, if it starts to rain, immediately suspend treatment and resume operations only after the surface has completely dried.
- Do not apply the product on loose, friable, low-strength substrates or those affected by structural cracks.
- Do not apply on dry surfaces, as the absence of moisture prevents proper penetration of active components and the development of deep crystallization.
- To ensure the effectiveness of the waterproofing system, the concrete thickness must exceed 8 cm.
- Do not add water to the mixture once it has begun the hardening phase.
- Protect the fresh coating from rain, frost, and direct solar radiation during the initial curing phases.

TECHNICAL PERFORMANCE

Characteristic	Test method	Standard requirements	Performance
Compressive strength	EN 12190	≥ 25 MPa	28.2 MPa
Bond strength	EN 1542	≥ 1.5 MPa	1.9 MPa
Chloride ion content	EN 1542	$\leq 0.05\%$	$\leq 0.05\%$
Elastic modulus	EN 13412	≥ 15 GPa	28.5 GPa
Thermal compatibility	EN 13687-4	Bond strength after 30 cycles: ≥ 1.5 MPa	1.8 MPa
Capillary absorption	EN 13057	$\leq 0.50 \text{ kg} \cdot \text{m}^{-2} \cdot \text{h}^{-0.5}$	$\leq 0.23 \text{ kg} \cdot \text{m}^{-2} \cdot \text{h}^{-0.5}$
Fire resistance	EN 13501-1	Euroclass	A1
Water permeability under pressure	EN 12390-8	No requirement	50% reduction in penetration compared to non-admixed mixture
Water permeability under high pressure	U.S. Army CRD C48-92	Performance verification	70% reduction in penetration compared to non-admixed mixture
Potability test	Legislative Decree 31-2001	Compliance with chemical parameters	suitable
Accelerated chloride penetration	ASTM 1202-08	Value comparison	suitable
Hazardous substances			See SDS



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ENVIRONMENT AND SAFETY

Safety

For information and advice on safety, handling, storage, and disposal, users of the product must refer to the most recent version of the Safety Data Sheet, which provides information on the physical, ecological, and toxicological characteristics of the product. If necessary, request the updated Safety Data Sheet by contacting Customer Service at +39 0171 1874992 or writing to info@drykos.com. Product compliant with the requirements of Regulation (EC) No. 1907/2006 (REACH) and Annex XVII, entry 47 and subsequent amendments and additions.

Use

Product for professional use.

WARRANTIES AND LEGAL NOTES

Should the product be defective, the liability of Drykos S.r.l. shall be limited solely to its replacement. The information and instructions in this technical data sheet regarding the application and end-use of the products are provided in good faith and reflect current scientific and technical knowledge; however, they do not constitute any guarantee or assumption of liability regarding the final outcome of the work involving their use. Given the variety of operating conditions and external factors beyond the control of Drykos S.r.l. during execution, it is the user's responsibility to verify the product's suitability for the specific application, assuming all risks and liabilities. Drykos S.r.l. reserves the right to modify the properties of its products at any time. Always refer to the most recent version of the product's technical data sheet. This edition cancels and replaces all previous versions. The latest updated technical data sheets are available on our portal at www.drykos.com.



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