

D-1 AQUA



**Brushable mortar for waterproofing concrete surfaces.
Ideal for potable water tanks and food contact surfaces**



■ PROPERTIES

Brushable, quartz-based waterproofing mortar of one component. It protects concrete structures against surface moisture, rising damp, and pressurized water. Meets the legislation requirements (European Regulation 10/2011/EU) on plastic materials and articles intended to come into contact with food and potable water.

Its certified formula (Certification No. 2632-GR01052758-23-08), does not allow for the migration of dangerous substances into the water, ensuring its quality and hygiene.

Classified as product for surface protection of concrete surfaces (c) per EN 1504-2, principle 2MC (Moisture control) and principle 8IR (Increasing resistivity).

■ ADVANTAGES

- Durable against positive and negative hydrostatic pressures.
- Water vapour permeable.
- Excellent adhesion to cement surfaces, without primer.
- Concrete protection from carbonization.
- Durable against temperature and frost.
- Easy application - excellent workability.
- Long-term waterproofing, even at a pressure of up to 7Atm, per DIN 1048.
- Efficient and cost-effective option for waterproofing existing structures.

■ APPLICATIONS

DUROSTICK D-1 AQUA is applied for the waterproofing and protection of concrete structures in direct contact with potable water and

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food. It is ideal for drinking water tanks as well as wine maturation and storage tanks. Suitable for new water tank constructions, but also for repairing or renewing existing ones. Also suitable for fire fighting and watering tanks, water towers, water collection cisterns and wells, drinking water supply/stormwater channels, and other concrete surfaces that come into contact with water and require waterproofing.

■ LIMITATION OF USE

Not for use on flexible surfaces, drywall, and plaster walls.

■ USE

1. Surface preparation

Proper preparation ensures perfect results.

The application surfaces must be sound, and free of loose sections, dust, oils, etc.

Remove all concrete wood ties, polystyrene as well as all protrusions. Cut all formwork pins and snap ties, 2-3cm deep and coat them with the corrosion inhibitor, RUST FREE POWDER of DUROSTICK. After completion, seal the holes using D-55, D-11 SUPER FAST or DS-247 of DUROSTICK. Then, clean all surfaces from any loose materials, and remove any oils and salts using the biodegradable cleaner BIOCLEAR INDUSTRIAL of DUROSTICK. Rinse with plenty of pressurized water so that there is simultaneous cleaning and complete soaking of the substrate. If there is a water leak (negative pressures), the leak must be sealed with the quick-setting cement DUROFAST of DUROSTICK.

2. Application

D-1 AQUA is applied in 2-4 crosswise coats of 1mm thick each one with a stiff brush, as well as with the 22cm STYLING ROLLER of DUROSTICK or a metal trowel. Empty a 25kg bag of mortar to 5.0lt of clean, cool water for a trowel application, or 6.5lt of clean, cool water for a brush or roller application. It is recommended to use a low rpm electric mixer, equipped with the appropriate mixing attachment and mix for approximately 5 minutes, until a lump-free homogeneous mass is created. The produced mixture should be thick enough, depending on the application method. Before applying the first

waterproofing coat, the substrate must be sufficiently soaked, but without standing water. The mixture remains workable for 2 hours. The second coat is applied approximately after 4-6 hours (depending on the ambient conditions and the substrate). Before applying the next coat, and if the previous one was allowed to dry, soak the surface again. Apply each coat carefully to ensure complete coverage of all surfaces, especially at the junction between the walls and the floor, and over the coving mortar.

■ USEFUL TIPS - NOTES

- If the substrate to be coated has capillary cracks, it is recommended to seal it using D-1 FLEX of DUROSTICK.
- For potable water tanks, it is necessary to observe hygiene rules (water chlorination, avoiding contact with insects, etc.). In underground water tanks, provide exterior waterproofing solution, to avoid the possibility of water contamination. Before putting the coated tank into operation, it must be thoroughly rinsed with water.
- Regarding wine tanks, since the pH of wine is acidic, it is necessary to ensure its quality. For this reason, before use (7 days after the application completion), the tank must be cleaned with pressurized water and while it is wet, the pH should be checked with litmus paper (by touching it to the walls). Depending on the pH value, and if necessary, repeated sprays of tartaric acid are carried out to neutralize the surface of the tank. This stage is very important and must be carried out under the guidance of an oenologist.
- The tank can be used after at least 7 days from the application completion of the mortar.
- For absolutely safe waterproofing results when applying the mortar into tanks, a mortar coving is first formed all around the base of the tank, at the junction of walls with the base. Between the second and the third coat of D-1 AQUA of DUROSTICK, encase the fiberglass mesh DS-490 (cut 20cm wide strips) into the mortar.

■ CLEANING

Clean all tools with water, immediately after use.

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■ CONSUMPTION

1.3kg/m²/mm thick coat.

■ STORAGE

Store in the factory-sealed packages, in dry and shaded places, for 12 months from production date.

■ PACKAGING

Paper bag of 25kg on a 1,500kg pallet

TECHNICAL SPECIFICATIONS

(Measurement conditions 20°C and 50% R.H.)

■ Form - Color	Cementitious mortar - White
■ Bulk density of dry mortar	1.25±0.05kg/lt
■ Bulk density of fresh mortar	1.55±0.05kg/lt
■ Maximum grain size	0.5mm
■ Water requirement	5.0lt up to 6.5lt water in 25kg mortar, depending on the application method
■ Application temperature	From +5°C to +35°C
■ Temperature resistance	From -30°C to +90°C
■ Application thickness	1mm/coat
■ Pot life	2 hours
■ Foot traffic	After 4-6 hours
■ Backfilling	After 3 days
■ Water tightness per DIN 1048	Under water pressure of up to 7Atm (kg/cm ²)

PRODUCT PERFORMANCES

■ Permeability to water vapour per EN 7783	SD < 5m (class I, water vapour permeable)
■ Capillary absorption and permeability to water per EN 1062-3	w = 0.04kg/m ² ·h ^{0.5}
■ Adhesion strength per EN 1542	2.50 N/mm ²
■ Reaction to fire	Class A1

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