



TECHNICAL DATA SHEET

HYDRO-CRY

ONE COMPONENT CRYSTALLIZED WATER INSULATION MATERIAL

DESCRIPTION:

Grey cement based, one component crystallized water isolation mortar which is resistant to positive and negative water pressure and provides water impermeability by forming insoluble crystals in capillary gaps in the cement based surfaces.

APPLICATION AREAS:

Applied as horizontal and vertical, at indoors and outdoors with a brush / trowel or dry spreading to provide a permanent waterproofing surface resistant to both positive and negative pressure in old and new buildings on cement based surfaces (such as retaining walls, foundation and curtain walls, cold joints, elevator pits, basement floor walls/ceilings, kitchen/bathroom walls and ceilings, concrete pipes irrigation canals, water tanks, pools, etc.).

ADVANTAGES:

- * Provides labor and time advantage due to it's easy application feature.
- * Integrates into the cementitious surface, so provides a permanent water isolation by resuming the formation of insoluble crystals in the capillary gaps at every contact with water throughout the life of the surface.
- * Provides resistance to positive and negative pressure, provides an ideal economic and easy waterproofing solution for difficult application areas.
- * As integrated in the surface, it does not tear, crack or worn .
- * Resistant to freeze & thaw circle and lime water.
- * Prevents corrosion and protects reinforcements against water damages.
- * Reduces the shrinkage cracks formation by slowing down the hydration process of the fresh concrete surfaces.
- * Applied as dry spreading for sub-foundation insulation, it reacts with the foundation concrete and provides insulation for the life of the concrete.
- * Applied as dry spreading for water isolation of horizontal cold joints.
- * Proper for drinking water tanks.

SURFACE PREPARATION:

Application surface should be clean, sound and free from dust. Adhesion barrier materials (oil, dirt, dust, etc.) should be cleaned, cement-mortar residues should be scraped. Gaps and cracks on the application surface should be repaired with proper NUR repair mortars at least 1 day before the application. Surface should be completely dampened just before the application and it should be waited until the surface absorbs all water. Surface should be dampened (not fully wet) before the application.

PRODUCT PREPARATION:

For brush consistency 6,0-7,0 liters of clean water; for trowel consistency 5,0 - 6,0 liters of clean water is slowly poured on 20 kg HYDRO-CRY mortar by mixing. Blended by a low speed mixer to ensure that there are no lumps in it. Mortar is rested for 2 minutes to mature and mixed again before the application. Considering workability time and size of application surface, mortar can be mixed in smaller amounts with same dust/water ratio.

APPLICATION METHODS:

- * Prepared HYDRO-CRY mortar is applied to the entire surface in one direction brush strokes with a 1 mm thickness as the first layer.
- * After 4-5 hours from first layer application (when the surface hardened but not fully dried), prepared HYDRO-CRY 2nd layer mortar is applied to entire surface in reverse direction brush strokes with a 1 mm thickness.
- * If needed, 3rd layer application can be done as the same way.
- * If the waiting period between the layers is over and the surface becomes dry, surface should be dampened before applying the 2nd layer.
- * In sub-foundation insulation, after the formwork and iron are laid on the lean concrete, HYDRO-CRY is equally spread at 3 kg per m² just before the concrete is poured. The chemical reaction starts with the fresh concrete poured on it and the sub-foundation insulation is completed.
- * For the isolation of the horizontal cold joints due to the delays in the applications HYDRO-CRY that prepared with trowel consistency can be applied by trowel or pouring and spreading instead of water holding tape.
- * For old concrete, brick or briquette surfaces, mortar should be prepared as trowel consistency for the first layer. Mortar is applied to the surface with a trowel as a smooth thin layer. For the 2nd layer, mortar should be prepared as brush consistency and applied with a brush on the 1st layer.
- * During the application, make sure that there is no space or any area without mortar on surface. Make sure that every mortar layer covers the application surface completely.
- * A protecting covering layer (industrial floor covering, cementitious plaster, tile, screed, etc.) should be applied on HYDRO-CRY at areas which are under load, open to traffic or exposed to mechanical impacts.
- * If a cementitious covering layer (such as tile, screed, plaster) will be applied, application should be done when HYDRO-CRY surface is fresh. If the application will be done after the curing of HYDRO-CRY, surface should be cleaned with dilute acid solution.
- * Ambient/surface temperature should be between +5°C and +30°C during application.
- * Any additional material (such as water, lime, cement, gypsum, water etc.) should not be added in the prepared mortar.
- * HYDRO-CRY mortar should not be applied on unsound, problematic and loose surfaces.
- * It is very important to keep the surface dampened for 5 days after the application in order for the product to integrate properly to the surface. So the surface should be dampened regularly for 5 days, protected from wind and airflows, direct sunlight, frost and sudden temperature changes with a plastic cover.
- * Any curing material should not be applied on the surface after application.
- * Mortar should not be applied on frozen, melting or within 5 days danger of frost surfaces.
- * Hardened-set mortar should not be used by adding water and mixing again.
- * After setting time is completed, surface becomes ready for use.

SHELF LIFE:

Unopened original packages can be stored in dry (%60 R.H.) and cool (+5°C / +25°C) environments up to 12 months.

APPLICATION LIMITS:

Maturation Time: 2 min.
Workability Time: 20 min.
Drying Time: minimum 7 days

UNIT CONSUMPTION:

12-13 m² / 20 kg (Brush consistency / Application Thickness: 1mm x 1 layers)
5-6 m² / 20 kg (Trowel consistency / Application Thickness: 2mm x 1 layers)



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Surface Protection Products / Covering Application /
Crystalline Waterproofing Material

Principle

2.2 C / 8.2.C

Reaction To Fire

Bs1d0

Adhesion Strength By Pull-Off

≥ 0,8 N/mm²

Non traffic load, rigid systems

Capillary Water Absorption and Water Permeability

≤ 0,1 kg/m².h^{0.5}

Water Vapor Permeability

Sınıf I; SD < 5 m

PERFORMANCE DECLARATION NO

1504-2 / PB-07.001

PDDD SYSTEM

SİSTEM 2+



GHS05



GHS07

H315: It causes skin irritation.

H318: It causes serious eye damage.

H335: It may cause respiratory irritation.

P280: Wear protective gloves/protective cloths/eye protection /face protection.

P305 In case of contact with eyes, rinse carefully with water

P351 a few minutes. If available and easy, remove contact

P338: lenses. Continue rinsing.

