



# HYDRO CRETE

## Acrylic Modified Emulsion & Waterproof Additive For Mortar & Concrete

Dubond's Hydro Crete is an acrylic emulsion which when added to cement mortar / concrete / grout provides good adhesion, water resistance and improvement of other properties. It is available in form of a milky liquid.

### Green Building Rating



Low Emission



Low Ecological Impact



Health Care



Water Based

### Areas of Application

Hydro Crete is a high quality emulsion that substantially increases the quality of cement mortars /concrete /grout for :

- Rendering and coating
- Jointing
- Repair and adhesive mortar
- Roof finishing
- Bonding of concrete casts
- Tiling
- Waterproof rendering
- Cement injection mix

### Features & Benefits

- Extremely good adhesion
- Reduced shrinkage
- Greater elasticity
- Excellent oil and water resistance
- Increased abrasion resistance
- Improved chemical resistance
- Improved UV resistance

### Method of Application

- Concrete surfaces should be sound and clean, free from oil, grease, cement laitance & loosely adhering particles.
- Absorbent surfaces should be saturated thoroughly with water but without showing any puddle on their surfaces.

### Application Instructions

**Mixing :** Mixing of diluted Hydro Crete to cement mortar / concrete should preferably be done manually. When a concrete mixer is used, pour the mortar as soon as its consistency is cohesive. Do not run the mixer too long.



**Aggregates :** Aggregates used in the mortar / concrete should be well graded and thoroughly washed. Sand particles sizes should correspond to the thickness of mortar to be applied.

Thickness of Mortar	Particle Size
5 mm	0 – 2 mm
6 – 15 mm	0 – 3 mm
over 15 mm	0 – 5 m

## ■ Application Method / Tools

### 1. Bond Coating :

Prepare the base as indicated above. Apply cement based primer by using Hydro Crete : Water = 1 : 4 by volume in order to obtain a thin layer. When the primer coat is still fresh and sticky apply mortar made out of Hydrocrete & water combination.

### 2. Masonry Jointing :

Prepare the base as indicated above. Make a firm mortar with fine sand & cement using Hydro Crete : Water = 1 : 8. Impregnate the area with primer coat as above. While the primer is wet, apply the mortar and immediately finish or reshape the surface as required.

### 3. Waterproof Plaster :

Dilute Hydro Crete with water in the proportion of 1 : 6 by volume. Prepare the mortar with this gauging mortar. Cured Plaster with Hydro Crete would harden faster and would be watertight.

### 4. Bonding Successive Concrete Casts :

Wash the surface with high-pressure jet. Prepare a pasty mortar with Hydro Crete: Water = 1 : 8 by volume. Apply this mortar onto the surface in a layer of 23 – 30 mm thickness. Pour fresh concrete after about an hour. Vibrate carefully to achieve satisfactory interpenetration of mortar and concrete.

### 5. Polymer Modified Cement Grout for Injection :

Open the crack lines into V and U groove and fix galvanized iron nozzles spaced at regular intervals of 0.5 to 1.5 mm c/c along groove length with Hydro Crete or HYDROBUILD SBR. Prepare a cement grout slurry admixed with Hydro Crete at dilution rate of 1 : 4 to 1 : 8 by volume with water. Inject the fluid as per normal.

### 6. Cleaning of Tools :

Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.

### 7. Curing Treatment :

Ensure that freshly applied mortars, renders, floor toppings, etc, are adequately protected from the drying effect of wind, sun and high temperatures. Adopt a curing regime appropriate to the application such as water mist, wet hessian, plastic sheeting, curing membranes.

## ■ Technical Information

Appearance / Colour	Milky White liquid
Chemical Base	Acrylic dispersion
Density	1.03 kg / l at 27 °C
Solid Content	40%
pH	>7

## ■ Compressive Strength

(Mpa) Hydro Crete by weight of cement (According to ASTM C 109)

Curing Time	Control	5%	10%	15%
7 Days	~30 N/mm <sup>2</sup>	~20 N/mm <sup>2</sup>	~25 N/mm <sup>2</sup>	~29 N/mm <sup>2</sup>
28 Days	~50 N/mm <sup>2</sup>	~35 N/mm <sup>2</sup>	~38 N/mm <sup>2</sup>	~44 N/mm <sup>2</sup>

## Flexural Strength

(Mpa) Hydro Crete by weight of cement (According to ASTM C 293 -79)

Curing Time	Control	5%	10%	15%
7 Days	~7 N/mm <sup>2</sup>	~8 N/mm <sup>2</sup>	~8.5 N/mm <sup>2</sup>	~8.9 N/mm <sup>2</sup>
28 Days	~9.5 N/mm <sup>2</sup>	~10 N/mm <sup>2</sup>	~10.8 N/mm <sup>2</sup>	~11.8 N/mm <sup>2</sup>

## Water Absorption

Hydro Crete by weight of cement

Control	5%	10%	15%
~5.9%	~2.9%	~2.0%	~1.60%

**Substrate Temperature** : +15°C min. / + 40°C max.

**Ambient Temperature** : +15°C min. / + 40°C max.

## Packing

1 ltr, 5 ltr & 20 ltr container.

## Shelf Life & Storage

12 months from date of production if stored in undamaged & unopened, original sealed packaging, in dry conditions & protected from direct sunlight. Protect from frost.

**DISCLAIMER** The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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