

# HYDROBOND EP - Normal

## Epoxy Resin Bonding Agent

### Description :

Dubond's Hydro Bond EP - Normal is a high performance bonding agent based on a 2 component solvent free epoxy resin ideally suited to a wide range of building and civil engineering applications.

### Uses :

- Hydro Bond EP - Normal may be used to bond epoxy mortars, fresh cementitious concrete or mortar to a wide variety of surfaces including mineral substrates (concrete, brick, stone, mortar, GRC, fibrous cement), wood, iron and steel and cured epoxy mortars.
- Hydro Bond EP - Normal exhibits excellent adhesion enabling it to be successfully employed in both structural and non-structural situations. Special high strength grades can be made to order.

### Advantages :

- Shrink free
- Insensitive to moisture during application, cure or whilst in service
- Applicable at low temperatures down to 5°C
- Excellent adhesion to most building materials even when damp
- Available also in Long Potlife grade (Hydro Bond EP - Normal)
- High tensile and flexural strength
- Supplied in factory proportioned units
- Easily applied

### Instruction to use :

#### Preparation of substrates

- Mineral/Resin Substrates. Mechanically roughened, free from all contaminants (eg. dust, oils, grease, ice, etc.), surface water, laitance, old form oil, curing membrane and old coatings. Suitable methods of preparation include blast cleaning and scabbling (sanding/grinding on fibrous cement).
- Wood. Mechanically sanded, free from all contaminants (dust, oils, grease, etc.) surface water, stains, impregnants and old coatings.
- Iron/Steel. Mechanically cleaned, free from all contaminants (dust, oils, grease, etc.) coatings and corrosion products and surface water for maximum bond strengths.

#### Mixing

Hydro Bond EP - Normal supplied in factory proportioned units comprising the correct quantities of Part A (Resin) and Part B (Hardener). Thoroughly stir both components separately using a slow running drill/stirrer with a windmill type paddle (max. speed 600 rpm). Decant all Part B into Part A and mix thoroughly together until a uniform colour is achieved (typically 3 mins). Apply immediately.

#### Application

Apply a thin layer of Hydro Bond EP - Normal to the prepared substrate by brush or roller. Ensure the product is worked well (scrubbed) into the substrate. This is particularly important on damp surfaces. Ensure the attainment of an overall glossy sheen. Any shear connectors or similar must also be coated. Apply the fresh concrete or mortar whilst the Hydro Bond EP - Normal is still tacky. Apply epoxy mortars within 24 hours.



## ■ Cleaning :

Uncured material may be cleaned from application tools etc. by using Dubond Epoxy Thinner. Cured material can only be removed mechanically.

## ■ Technical Data

Form	Slightly Thixotropic Liquid
Density	1.4 kg / litre approx.
Volume Solids	100% (solvent free)
Mixing Ratio	A : B = 2 : 1 by weight or by volume
Secant Flexural Modulus of Elasticity @ 7 days	2.0 Gpa approx.
Comprehensive strength 14 days at 20°C	60 Mpa approx.
Flexural strength 7 days at 20°C	28 Mpa approx.
Tensile strength 7 days at 20°C	13 Mpa approx.
Adhesion to concrete 7 days	> 1.50 Mpa approx. (concrete failure all grades)
Adhesion to sandblasted steel 7 days	15 - 20 Mpa approx. (epoxy failure)
Application Temperature (min.-max.)	5°C – 30°C (substrate and ambient temperatures)
ASTM C881-78	Complies with Type II, Grade 2 Class B & C
Consumption / Coverage	0.25 to 0.8 kg/m <sup>2</sup> (typically 0.4 - 0.5 kg/m <sup>2</sup> ) (dependent on surface profile, texture, temperature and wastage)
Colour	Grey / Beige
Packaging	5-kg Set
Potlife (5 kg set)	Temperature 10°C 50 mins approx. 20°C 30 mins approx. 30°C 15 mins approx.
Open Time	Temperature 10°C 90 mins approx. 20°C 60 mins approx. 30°C 30 mins approx.  Bond coat of Hydro Bond EP CT - Normal applied immediately after mixing

## ■ Important Notes :

- Do not apply Hydro Bond EP - Normal to surfaces with standing water. Maximum moisture content of the concrete 10%.
- Do not mix part kits.
- Only mix as much as can be applied within the stated potlife.
- Do not dilute the product with solvent as this will affect the cure and in-service performance.
- Service temperatures >70°C may affect the performance of the product.
- Lower temperature (substrate/ambient) during storage/application will increase the material consumption due to a rise in viscosity.
- Minimum application thickness 0.2 mm as bonding agent.
- If Hydro Bond EP - Normal has exceeded it's open time, another coat must be applied within 24 hours, after 24 hours the surface must be mechanically abraded then washed clean with Dubond Epoxy Thinner. Allow to dry before recoating.

- It is important to observe proper concreting practice when applying concrete toppings and screeds on substrates coated with Hydro Bond EP - Normal. Correct placement and curing techniques must be observed to prevent excessive and rapid drying of the mix.
- If in doubt, consult our Technical Department.
- The temperature at which the Hydro Bond EP - Normal is stored during the 24 hours before it is mixed will govern its potlife when mixed.
- Compressive strengths etc. of epoxy resins must be qualified by the testing method eg. Test Standard or size of specimen under test and the rate at which the test piece is loaded while under test, as these factors will affect the result markedly. Faster loading rates will generally give higher ultimate loads and vice versa. Also, a specimen at lower temperature will show higher strengths and vice versa.

### ■ Handling Precaution :

- Avoid contact with skin, eyes and avoid breathing its vapour. Wear protective gloves when mixing or using.
- If poisoning occurs, contact a doctor or Poisons Information Centre.
- If swallowed, do NOT induce vomiting. Give a glass of water.
- If skin contact occurs, remove contaminated clothing and wash skin thoroughly.
- If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

### ■ Shelf Life / Storage

- 12 months from the date of manufacturing in unopened condition.
- Store in cool & dry place. Keep away from direct sunlight.

**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.

### **Dubond Products (India) Pvt. Ltd.**

C-3, 1001, Anushruti Tower, S.G. Highway, Thaltej,

Ahmedabad-380054. Gujarat - INDIA

Ph: 91-79-2685 6815 Fax: 91-79-2685 6816

Email: info@dubond.in Website: www.dubond.in

**Customer Care : +91 9377177771**

