

Technical Specification on DC Bond.

Product Information:

DC Bond, is a bonding agent, used to bond gypsum plasters on smooth low suction surfaces and eliminate hacking (making surface rough, by making impression on to the smooth concrete surface) E.g. Concrete surfaces.

Reason for Introducing DC Bond:

Looking at the current scenario of construction market where in Huge projects with extensive RCC Concrete structures are coming up, market is shifting from conventional masonry towards Myone shuttering, shear walls. Hacking of extensive concrete surface becomes quiet time consuming and tedious. Also adhesion of our plasters to smooth surfaces is always doubt full. In order to address changing trends and issues of de-bonding we are planning to bring our own DC Bond.



Why at all a Key (grip) is required for application of Gypsum Plasters on Reinforced Cement Concrete (RCC) surfaces?

1. Any Concrete surfaces are smooth and slippery
2. They don't provide any key (grip) for plasters to adhere to
3. A key (Grip) can be provided in two manners
 - a. Hacking - Commonly called as Tacha which provides only mechanical key (Grip)
 - b. Bonding Agent - Bonding agent provides chemical bonding properties as well as mechanical bonding to the surface it is coated with.

Pros and Cons of various types of Bonding Methodologies

Hacking	Bonding Agent
Mechanical Bond	Chemical Bond
Laborious and Time Consuming	Easy and Fast to apply
Adequate hack marks are always debatable	Once coated, there remains no concern
Higher grade of concrete (Above M-30) difficult to hack after 10 days	Can be applied on any surfaces, rough concrete, honey comb concrete, smooth concrete, higher grade of concretes etc.
Risk of debonding, delamination etc. always persists	No risk involved
Fine chipped particles and dust of concrete poses a risk of health hazard	No health hazards involved
Cheap at cost - Rs. 1 per sq.ft.	Slightly expensive - Rs. 3 to 3.5 per sq.ft.

Typical hacked Surface:



Specification for Hacking:

Hack marks should be angular rough impact marks, 50 in no in an area of 1 Sq Ft. at a depth of - 1 Inch, clearly exposing the surface beneath.

Specification for Hacking:

Consequences of improper hacking:

1. Inadequate and improper hacking leads to weak adhesion of plaster on to the RCC surfaces.
2. Major portion of RCC Surfaces are Ceilings, which have large smooth laminar expanse
3. Plaster which adheres to it in a min. thickness of 8 mm and max. thickness ranging between 15 to 22 mm.
4. As the ceiling plaster is exposed to gravitational force, (which tends to pull the plaster material down when in wet condition) requires adequate grip, hold to adhere and withstand force of gravity, if that is lacking, plaster may detach itself from the base surface
5. The detached surface which laterally grips adjacent plaster mass, may delaminate itself as a layer of plaster any time without prior notice or deflection seen.

Hence proper firm bonding is most essential

6. The headache and pains which one undergoes in repairing and redoing the delaminated surface is beyond explanation, it not only involves cost, time but as well keeps one under a permanent tension of further de lamination in future

DC Bond:

- Used as a Bonding Agent
- To apply on all low suction, smooth surfaces before applying gypsum plaster
E.g. RCC Ceilings, RCC Shear Walls all surfaces where bonding can be an issue
- It is a water based emulsion, having pH value within a range of 7 to 9, which makes it neutral non reactive
- It is non inflammable
- Eliminates Hacking and ensure strong and firm bond of One Coat Gypsum Plaster with substrates

Substrates

Low suction and smooth concrete surfaces

Product Features:

- Ready to apply, not to be mixed or diluted
- To be applied as a Single Coat
- Apply with help of a brush (used for painting) bristles width 4 or 6 Inches.
- Simple paint application
- Contains fine aggregates to impart better mechanical bond
- DC Bond is only the bonding agent which imparts both mechanical and chemical bond
 - a. Mechanical Bond – Imparted by the suspended fine aggregates, which are inert, screened on 500 micron sieve, Pure white in color
 - b. Chemical Bond – Imparted by dry polymeric film
- Green in color, easy to identify applied surfaces
- One Coat Plaster can be applied any time once DC Bond dries completely on to the surface, approximate time for drying is 24 hours. (Again it would depend on the climatic conditions and location)
- The only Bonding agent specified with One Coat Plaster
- Available in 5 Kgs., 10 Kgs. and 18 Kgs. drums

Coverage:

Approximate Coverage would be 5- 6 Sq.mtr per kg

(Actual coverage is dependent on the substrate condition, surface porosity, method of application)

Application Methodology:

1. Shake & stir thoroughly before use
2. Single One coat application
3. Apply evenly all over the surface with even distribution of fine aggregates
4. Apply by Paint Brush
5. Gypsum plaster can be done once surface is dry
6. DC Bond does not require the polymeric film to be tacky during application
7. DC Bond does not require dilution

Shelf Life:

- Shelf life is 6 months from the date of manufacturing in unopened containers.
- Store at the cool and dry place, away from sun heat and under a shaded area.

Caution:

- Wash hands with water after use
- Keep away from Eye contact, in case of eye contact wash eye thoroughly with water, if irritation persists kindly consult physician
- If at all spills on clothes, wash them with plain water immediately

DC
BOND



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