



HIND EP 321

PRODUCT DATA SHEET

THREE COMPONENT STAINFREE EPOXY BASED TILE GROUT

DESCRIPTION

Hind EP 321 is a stain-free, chemical resistant, three component water dispersed coloured epoxy based tile grout for filling of joints between ceramic tiles, vitrified tiles, marble and stone.

USES

Hind EP 321 is used to filling up the wall and floor joints of ceramic tiles vitrified tiles, marble and stone in residential and industrial buildings. It can be used in Bathrooms, Toilets, Kitchens, Hospitals, Laboratories, Swimming Pools, Rest Rooms, Hotels, Storage tanks and Schools where tiles are subject to exposure of chemicals and aggressive contaminated water.

ADVANTAGES

- Stainfree, non-fading colour, easy application by trowel for both horizontal and vertical joints.
- It ensures excellent bond with different types of tiles.
- Makes the joints waterproof, high mechanical resistance and good abrasive resistance.
- Rapid hardening and Non-cracking without any shrinkage.
- Dust resistant.
- Resistant to chemicals and contaminated water.
- Easy Cleaning.

APPLICATION

Joint Preparation

All tile joints must be properly cleaned, spacers if used to be removed and free from any contamination, dirt, grease, oil and loose particles etc. before application of **Hind EP 321**.

Mixing

Add **Component B - Hardener** into **Component A - Resin** in a clean mixing pail and mix for **2 minutes** using a **slow speed mixer machine (<400 rpm)** fitted with a **stirrer**. After mixing pour **Component C- Powder Filler** into the liquid mixture in small quantity and mix thoroughly, until the entire quantity of filler is added, to get a uniform consistency. The material to be mixed as stiff as possible to apply into the joints.

Application

The grout after proper mixing is compacted into the joints by using a hard rubber grout float and it is to be ensured that the joints are completely filled. It is always recommended to apply in small areas and excess grout is removed from the tile surface as much as possible. The excess grout to be struck off diagonally to the grouted joint. The excess grout is cleaned with a wet sponge. Final cleaning is done after 24 hours of the application with normal soap detergent to get a clean joint surface. Application to be done at a Substrate Temperature ranging from **+5⁰ C Min. /+45⁰ C Max.** Ambient Temperature should be from **+5⁰ C Min. /+40⁰ C Max.**

PROPERTIES

Aspect	Comp. A (Resin) - Liquid, Comp. B (Hardener) - Liquid, Comp.C (Filler) - Powder
Mixing Ratio	Comp.A : Comp.B : Comp. C :: 0.240 kg : 0.060 kg : 0.700 kg (1.0 kg pre-packed system (by weight))
Colour	Ivory, White, Black, Grey, Copper Brown, Blue, Green, Brick Red, Sky Blue, Yellow and other colour as desired.
Mixed Density	1.75 Kg/Ltr. at 27 ⁰ C.
Pot Life	45 mins. at 27 ⁰ C ± 2 ⁰ C
Compressive Strength (As per ASTM C579)	~72 N/mm ² in 7 (Seven) days at 27 ⁰ C
Tensile Strength (As per ISO 527-1)	~20 N/mm ² in 7 (Seven) days at 27 ⁰ C
Bond Strength after 48 hours (As per t EN 1542)	2.5 N/mm ² (Concrete Failure)
Sag (As per FIP 5.3)	Nil
Water Clean ability	~ 2 hours at 27 ⁰ C
Water Absorption (As per ISO 62)	~ 0.02% after 7 (Seven) days.
Curing Time	Foot Traffic - Min 24 hours
	Heavy Traffic - Min 72 hours

Chemical Resistance Information (As per ASTM C 267 at 23⁰ C)

Chemical/Reagents	Continuous Exposure	Intermittent Exposure	Splash Exposure
Milk	R	R	R
Ethanol	NR (Soft)	R	R
Methanol	NR	NR	R
Wine	R	R	R
Potassium Permanganate 10%	NR	R	R
Potassium Permanganate 1%	R	R	R
Sulphuric Acid 20%	NR (Discoloration starts after 7 days)	R	R
Oxalic Acid 10%	R	R	R
Acetic Acid 5%	R	R	R
Lactic Acid 5%	R	R	R
Benzoic Acid 5%	R	R	R
Tannic Acid 50%	R	R	R
Tartaric Acid 50%	R	R	R
MEK	NR	NR	R
Phosphoric Acid 80%	R	R	R
Sodium Hydroxide 50% saturation	R	R	R
Chloroform	NR	NR	NR
Methylene Chloride	NR	NR	NR
Toulene	NR	NR	R
Xylene	NR	NR	R
Fruit juice	R	R	R
Liquid Soap 10%	R	R	R
Sea Water	R	R	R
Water	R	R	R

R- Recommended

NR – Not Recommended

Chemical Resistance depends on Exposure Levels

Splash – Minor Spill cleaned up quickly.

Intermittent – Exposure to chemicals for several times a day.

Continuous – Heavy exposure to chemicals continuously.

CONSUMPTION

Guidelines for coverage can be referred for using **Hind EP 321 (Approx. Sq.ft per pack of 1.0 Kg)**

Dimension of Tiles	Joint width 2 mm	Joint width 3mm	Joint width 4mm
	COVERAGE		
100 X 100 X 3	55	35	25
150 X 150 X 4	60	40	29
200 X 150 X 5	55	36	25
200 X 200 X 5	63	42	30
200 X 300 X 6	63	42	30
300 X 300 X 6	80	53	39
400 X 400 X 6	105	70	53
450 X 450 X 7	100	67	50
500 X 500 X 8	98	65	49
600 X 600 X 8	120	80	60

PACKING

Available in 1 Kg Pre-Packed System or as desired by order.

SHELF LIFE

Best before 12 months from the date of manufacture. Should be stored in a cool and dry place away from direct sunlight at temperature ranging between 2^o C (Min.) and 35^o C (Max.).

HANDLING PRECAUTION

Hind EP 321 is non-toxic and contact with eyes or prolonged contact with skin is to be avoided. Inhalation of the powder material is to be avoided during the time of mixing. Keep the material out of reach of children.

Note:

- **Hindcon Chemicals** maintains a team of technically trained professionals to provide full support to your problems in construction, and recommend the correct product to suite your specific requirements. Our authorized applicators can attend your site for application of the products.
- The content of the Technical datasheet are for general information and guideline. The result shown here are generated from our laboratory or from our site experiences.
- Quality of our products are maintained as per ISO9001:2008 recommendations and continuous researches. The behavior can change as per the prevailing conditions at the time of applications.
- Since **HINDCON CHEMICALS LIMITED** has no control over the use to which the users may put the material, it does not claim or warrant that in the user's particular circumstances, the result that the user will obtain from the product will be the same as those described in this communication or that the user will find the information or recommendations complete, accurate or useful. The client must test and ascertain the safety and fitness for the product for use.
- The right to change the properties of the products is reserved with us. The proprietary rights of third parties must be observed. All orders are accepted subject to the terms of sale and delivery. Users must always refer to the most recent issue of the latest Data Sheet for the product concerned, copies of which will be supplied on request.

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