



# ENIPOXY- BA 304

## EPOXY BONDING AGENT

### DESCRIPTION

ENIPOXY- BA 304 is a two-component epoxy-bonding agent specially designed for old to new concrete.

### ADVANTAGES

- Pre-packaged systems to ensure correct mixing.
- Excellent bonding properties of new concrete to old concrete, steel, brickwork and most other substrates common to construction.
- Takes up and transfers tensile and compressive loads.
- High resistance to water and alkalis.
- Correctly designed pot life permits efficient progress.
- Ease of application by brush or roller.

### RECOMMENDED USES

- Structural bonding of new concrete or hydraulic mortar to old concrete, brickwork, masonry, natural and synthetic stone, glazed brick, tiles, steel and aluminum.
- On-site concrete extensions and modifications to existing concrete structures.
- Joint less bonding of construction joints in sewage systems, canals, gullies, reservoirs, basins, irrigation systems.
- Closing off shrinkage joints in ceilings, floors, decks, ramps, walls, retaining walls and concrete pavements.
- Structural bonding of cement toppings and screeds.

### TECHNICAL DETAILS

Product as supplied : Component A Component B	colourless liquid colourless liquid
Density at 23°C	1.06 g/cm <sup>3</sup>
Mechanical properties after 7 days at 23°C Adhesive strength on concrete	concrete failure
Chemical resistance	Bonding Agent for new concrete is resistant to potable, sea and waste water, as well as alkalis.
Temperature resistance	Bonding Agent for new concrete is unaffected by temperatures from -30°C to +100°C in dry conditions and up to +45°C in wet conditions.
Compatibility	Bonding Agent for new concrete can be used on old concrete and hydraulic mortars, as well as brickwork, tiles, natural and synthetic stone, steel aluminium.

### SURFACE PREPARATION

The application surface must be clean and free from dust grease and loose particles. Surface may be damp but not saturated.

## METHOD OF APPLICATION

**Mixing ratio:** Component A : Component B (Pre-Packed)

**Consumption:**

Approx. 0.25 kg/m<sup>2</sup> of Bonding Agent for new concrete, depending upon surface porosity and working temperature.

**Limitations:**

Minimum substrate temperature	+15°C
Max. Permissible moisture content of substrate	4%
Min. adhesive strength of the pretreated substrate	1.5 N/mm <sup>2</sup>
Min. temperature of Bonding Agent for mixing	+15°C
Min. temperature for curing	+15°C

**Mixing:**

- Pour component B completely into component A.
- Mix both components thoroughly using a low speed electric drill with mixing paddles (max. 300 rpm) Mix from side to side and top to bottom until a fully homogenous mixture of uniform color is obtained.
- Transfer content of working pack pail into suitable, clean container and carefully stir again prior to application.

**Pot life:** The prepared mix should be used up immediately, at least within:

90 minutes at 20°C

60 minutes at 30°C

30 minutes at 40°C

**Open time:** New concrete or hydraulic mortar must be placed within the open time:

Max. 5 hrs. at 20°C

Max. 3 hrs. at 30°C

Max. 2 hrs. at 40°C

**Placing / working sequence:**

- Bonding Agent for new concrete is applied by brush or roller (use a roller tray), working it well into the substrate. Place new concrete or hydraulic mortar during the open time of the Bonding Agent.

- Should the Bonding Agent have cured past the open time for any one reason, a fresh coat of Bonding Agent for new concrete shall be applied over the previous layer prior to placing fresh concrete or mortar.
- Fresh concrete and hydraulic mortar should have a water / cement ratio of > 0.6.
- Good concrete curing practice should always be observed, especially important for thin layers.

## SAFETY

ENIPOXY- BA 304 is safe, non-toxic, and eco-friendly and presents no health hazard. As with all chemicals, caution should always be exercised. Protective clothing such as gloves and goggles

**INHALATION:** Inhalation of vapor or mist should be avoided. Symptoms include coughing, wheezing, laryngitis, and shortness of breath, headache, nausea, and vomiting. Immediately shift victim to fresh air, and, if needed immediately start artificial respiration. Give oxygen if breathing is labored. Get emergency

**EYE CONTACT:** Flush eyes with water for 15 minutes and call for medical help.

**INGESTION:** causes nausea, vomiting, and loss of consciousness. If accidentally swallowed do not induce

**SKIN CONTACT:** Flush with water or soap and water until all traces have been removed. Seek medical attention if required.

## STORAGE

Minimum 18 months in unopened container. Store away from sunlight and preferably below 30°C.

## PACKING

ENIPOXY- BA 304 is pre-packaged.

**Note:** -All information is given in good faith on the results gained from experience and tests. However all recommendations of suggestion are made without guarantee since we do not have any control on the site conditions and its uses.

Technical Support:



& Polymertech UK Ltd.  
CN-07468396  
United Kingdom

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**Star Coatings & Membranes Pvt. Ltd.**

New Delhi-110025, visit us at : [www.starcoating.in](http://www.starcoating.in), E-mail: [info@starcoating.in](mailto:info@starcoating.in)



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