

Technical Data Sheet

BAYCOBOND-EP4032

Two-Component epoxy resin-based, medium viscous bonding agent

Description:

BAYCOBOND-EP4032 is a two-component, solvent-free, 100% solids, medium-viscosity epoxy bonding agent formulated specially for structural bonding of fresh cementitious compositions to old concretes ensuring a bond strength greater than the tensile strength of the hostconcrete.

Areas of application:

BAYCOBOND-EP4032 is typically used to:

- bond fresh concrete to dry, moist or damp concretes
- bond cementitious repair mortars to concrete, steel, tiles, bricks, etc.
- bond structural repair mortars & granolithic toppings
- in industrial areas, loading bays, bridges, retaining walls, columns & walls
- create a moisture & vapour barrier below fresh concrete/repair mortars
- create a moisture & vapour barrier to reinforcement; prevent future corrosion

Properties/Advantages:

BAYCOBOND-EP4032 is characterised

- by: easy to mix and apply
- solvent-free, 100% solids; no shrinkage
- medium viscosity ensures a reliable glue line
- two-colour coded components indicate mixing homogeneity once achieved
- extended contact time allows for consequent shutter works
- can be applied on damp concrete
- bond to dry, moist and damp surfaces
- for horizontal, vertical and overhead applications
- high bond, tensile compressive and flexural strengths
- resistant to many dilute chemicals aggressive to concrete and reinforcement
- excellent abrasion resistance
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innocuous once cured

Technical Properties:

Basis:	2-components epoxy-resin
Colour:	grey
Viscosity:	Medium
Density:	1,45 g/mm ³ at 23° C
Pot life at 23°C:	60 min.
Open time at 23° C:	3 hrs.
Full cure:	7 days
Minimum cure temp.:	+5° C
Elongation at break:	1,5 % (ASTM D-683)
Tensile strength:	20 N/mm ² (ASTM D-683)
Bond strength:	3,5 N/mm ²
Flexural strength:	40 N/mm ²
Compressive strength:	75 N/mm ² (ASTM D-695)
Water absorption:	0,30% (ASTM D-570)
Mixing ratio:	3:1 by weight

Packaging:

BAYCOBOND-EP4032 is available in 4 kg containers. Both components are delivered at a predetermined mixing ratio.

Storage:

Both components (A and B) can be stored for 24 month in the unopened containers. Store dry and free from frost above approx. + 10°C.

Surface preparation:

The area to be treated must be:

- dust free and solid
- free from separating and adhesion inhibiting substances such as e.g. dust, laitance, grease, rust and similar.

Dependent on the condition of the substrate use suitable means of preparation such as e.g. planning, scabbling, grit-blasting or shot-blasting.

The following criteria must also be respected, dependent upon the particular substrate:

Cement-based areas:

- Concrete quality: min. C20/25
- Age of substrate: min. 14 days
- Tensile adhesion strength: > 1,5 N/mm²

Iron and steel surfaces are to be abraded to expose bright metal and to be protected with an active corrosion inhibitor.

Product preparation:

Both components, A (resin) and B (hardener), are delivered in a predetermined mixing ratio. Tip all of component B into component A. It is advantageous to mix both components with a mechanical stirrer at a maximum of 300 rpm (e.g. with a slowly rotating drill with paddle). Mix very thoroughly. Implicitly stir from the sides and the bottom to ensure that the hardener is evenly dispersed vertically. Stir until the mix is homogeneous. Do not use directly from the packaging. Decant the material into a clean container and mix through thoroughly once again. The material temperature during mixing should be not less than 15°C.

Method of Application:

Fresh concrete:

Evenly spread BAYCOBOND-EP4032 onto the well pre- pared substrate as a primer and adhesive using a brush or roller and ensure a minimum adhesive bed thickness of 1,0 mm is maintained throughout.

The fresh concrete should be placed and compacted whilst BAYCOBOND-EP4032 is still tacky and within the specified contact time.

Repair mortars:

Apply BAYCOBOND-VK4032 in the same manner described for fresh concrete. Apply the structural repair mortar system once BAYCOBOND-EP4032 has become tacky and within the contact open time.

Curing:

Protect uncured product from rain and moving water. Once hardened no curing procedures are required.

Consumption:

approx. 1,45 kg/m² per mm thickness.

Higher consumption is expected on rough surfaces. Always allow for wastage when calculating quantities to order.

Cleaning of Tools:

During continued application, all tools must be regularly and thoroughly cleaned with water and/or solvent every 75 to 90 minutes (dependant on temperature) to prevent the product from setting on tool surfaces. Thorough cleaning must also be carried out immediately at the end of works or whenever work is suspended. Cured material can only be removed mechanically.

Important advices:

- Always mix a full pack. Do not mix part packs.
- Do not expose applied material before initial cure to moving water.
- Protect from rain before initial cure to prevent surface deformations.
- Lower site temperatures may reduce workability whilst reaction times (pot life and full cure) are extended. Higher temperatures shorten the pot life.
- Applications that are not clearly explained in this technical data sheet may only be carried out after consultation with and written conformation from the Technical Services Department of AB-SCHOMBURG.

Health and Safety:

Once completely cured,

BAYCOBOND-EP4032 is harmless.

The hardener (component B) is corrosive. Therefore implicitly ensure that the hardener does not come into contact with skin. Always wear protective gloves and adequate eye protection when working with this product.

Clean up contamination with plenty of water and soap, preferably with the addition of 10% household vinegar. Should splashes get into the eyes, rinse immediately with plenty of water and seek immediate medical help with reference to the current valid Material Safety Data Sheet.