BONDEX-421

Epoxy Bonding Primer

DESCRIPTION

BONDEX-421 is a water based epoxy primer designed to deliver exceptional adhesion even on the most demanding surfaces, providing a strong bond to low porosity substrates such as ceramic tiles, quarry tiles, timber and concrete. With its rapid curing, low odour and easy application, it is a highly versatile solution, suitable both as a specialist bonding primer for difficult conditions and as a general purpose primer. In some situations, two coats may be required to ensure complete sealing and a smooth, uniform finish, always offering a durable and reliable base for the highest standards of protection and coating performance.

Features & Benefits

- **Solvent free epoxy formulation**
- **Excellent adhesion**
- **Fast curing**
- **Long pot life**
- **Easy roller or brush application**
- **Low odour, suitable for occupied areas**

Packaging Kit

BONDEX-421 is supplied in pre-weighed units to ensure correct mixing ratios:

5 kg unit (Part A + Part B)

Coverage

Typical consumption **0.10–0.12 kg/m² per coat** depending on substrate porosity and surface profile. A second coat will increase consumption.

Coverage may vary depending on substrate porosity, surface profile and application method.

Environmental Conditions

Application and curing should take place between 10 °C and 30 °C. The substrate temperature must be at least 3 °C above the dew point to prevent condensation. Relative humidity should not exceed 75 % during application and for the first 48 hours of curing. Adequate ventilation is essential to achieve full curing and consistent finish.

Substrate Requirements

Concrete must have a compressive strength of at least 25 N/mm² and a tensile strength greater than 1.5 N/mm². Substrates must be dry, with a maximum relative humidity of 75 % (measured according to BS 8203). Surfaces must be clean, sound and free from laitance, oil, grease, dust, curing agents and loose particles. Mechanical preparation such as vacuum shot blasting or diamond grinding is recommended.

Mixing

Before application, ensure that all materials are conditioned within a temperature range of 15 °C to 25 °C. Combine Part A (Resin) with Part B (Hardener) and mix using a low speed electric mixer (300–400 rpm) for 2–3 minutes until a uniform blend is achieved. Scrape the sides and bottom of the container with a spatula during mixing to ensure complete integration.

Once blended, transfer the mixture into a clean container and continue mixing for an additional minute to guarantee full homogeneity. If required, **BONDEX-421** may be diluted with clean water, adding up to 5 % by weight.

Product Application

BONDEX-421 is applied by roller, brush or squeegee in a thin even coat. To ensure complete coverage, work the primer well into the surface. On highly porous substrates a second coat may be required.

Appearance

Clear to slightly amber liquid which cures to a transparent film on the substrate.

Chemical Resistance

BONDEX-421 has good resistance to a wide range of alkalis, oils and diluted acids. For specific chemical resistance enquiries, please contact the Technical Department.

Product Confines

BONDEX-421 should only be applied when relative humidity is below 75 % and substrate temperature is at least 3 °C above the dew point. It is intended for use as a primer and should always be overcoated with a suitable epoxy or polyurethane system. Slight colour variation may occur under UV exposure without affecting performance.

Cleaning

Tools and equipment should be cleaned immediately after use with JofaSolvent, the recommended cleaning agent for epoxy products. Once cured, residues can only be removed by mechanical means.

Health & Safety

Refer to the Safety Data Sheet (SDS) before use. Applicators must wear appropriate PPE including chemical resistant gloves, safety glasses and respiratory protection in poorly ventilated areas.

Disposal of Containers

Empty containers must be treated with the same precautions as full ones and disposed of via an authorised hazardous waste contractor.

Any remaining Part A and B should be mixed together and allowed to cure before disposal.

Additional Information

Jofa Resins endeavour to ensure that all product guidance provided is accurate and correct. Information given by or on behalf of Jofa Resins is based on tests and installations and on our current knowledge and experience. It implies no warranty or guarantee arising from the use of its products as the substrate and site conditions and the actions of any installation team involved in product application is beyond our control. Whether or not in accordance with any advice, recommendation, specification, or information given by Jofa Resins.

Jofa Resins products are guaranteed against defective materials and manufacture and are sold subject to our standard terms and conditions of sale, copies which can be obtained upon request.

Please contact the Jofa Resins Technical Department for further assistance.

TECHNICAL INFORMATION

Shelf Life	12 Months when stored in unopened containers under proper conditions.
Pot Life Temp 20°C	30 to 40 Minutes
Curing Schedule 20°C	**Touch Dry**: 2-3 h • **Overcoating:** 12–24 h • **Light traffic:** 24 h • **Full cure**: 7 days
FeRFA Floor Guide	Type 2
Storage	This Product must be stored off the ground in original packaging, unopened and un-damaged. The ambient conditions must be dry and between 5°C and 25°C with no direct sunlight. Protect from frost.
Temperature Resistance	Up to 60 °C
Fire Classification EN 13501-1	B_{fl}-s1
Adhesion Strength EN 13892-8	>3 N/mm²

The above values, based on laboratory tests and our practical experience with this product, represent typical properties measured under standard laboratory conditions of 20 °C and 50 % relative humidity.

JOFA Resins | Version 1.0 (July 2025)
All rights reserved © 2025