

Expancote* ACBA

Epoxy & Cement base anti-corrosion coating for steel bars and bonding agent

Uses

Expancote* ACBA is an epoxy and cement base anti-corrosion coating for steel bars and an excellent concrete bonding agent. Typical applications include:

- Repair of concrete, where steel bars are corroded.
- Provide excellent protection against corrosion to imbedded steel bars.
- Excellent bond with mortar and concrete.
- Suitable for use in water retaining and water excluding structures.
- Internal lining in RCC or steel pipes

Advantages

- Protect ferrous metals, Prevent rust creep
- Exhibits high mechanical bond strength, Positive adhesion - exceeds that of the tensile strength of the host concrete.
- Solvent-free - can be used in enclosed locations
- Contain corrosion inhibitor
- Long working life
- Easy application by brush, roller & spry.
- Bonds to green or damp concrete, even if the concrete is 24 hours old.
- Good resistant to water, carbon di-oxide, sulphates, chlorides, light acid and alkalis, organic solvents, oil and diesel

Description

Expancote* ACBA is three-component epoxy modified cementitious protective coating for steel and bonding agent for concrete and mortar, is supplied in pre-packaged form, liquid epoxy base, hardener and cementitious powder. The product is designed to be easily mixed on site using a slow speed drill fitted with a mixing paddle and then applied to the substrate using brush, roller or spray.

Design criteria

Expancote* ACBA is designed to be applied in one or two coats.

As an anti-corrosion coating 1 – 2 coats, and as a bonding agent single coat is recommended.

Specification

An anti-corrosion coating for steel bars and bonding agent for mortar and concrete shall be **Expancote* ACBA**, an epoxy & cement base product, supplied in pre-weigh packing. The cured coating protects ferrous metals against corrosion.

Properties

Base	: Epoxy resin modified with cement
Color	: Blackish grey
Bond strength	: 1.80 – 2.00 N/mm ² (Concrete failure)
Mixed density	: 1700 kg/m ³
Minimum application temperature	: 5°C
Pot life @ 20 °C	: 120 – 180 Minutes
Pot life @ 30 °C	: 90 – 120 Minutes

Instructions for use

Preparation

Steel surface

All ferrous material must be clean and free from oil, grease mill scale, rust and existing coating. This is best achieved by grit/sand blasting, although thorough wire brush can be sufficient. Some rust removers based on phosphoric acid tend to leave an electrically insulation film on ferrous metals and must not be used, contact the local Fospak Expanchem office for advice.

Concrete surface

All concrete surfaces which are to receive the bonding layer must be free from oil, laitance, grease, wax, dirt or any other form of foreign matter which could affect adhesion. Typically, old concrete surfaces can be cleaned using high pressure water jet, grit blasting or mechanical wire brushing, new concrete required wire brushing and cleaning.

Mixing

Expancote* ACBA Base and Hardener liquids should be poured from the tins container into the metal drum/bucket, and mix both components for 2 – 3 minutes then add third powder component into the mixed liquid epoxy and further mix for 2 – 3 minutes until a uniform homogeneous mix is achieved. Mix the material by using slow speed drill (500 r.p.m.) fitted with a suitable mixing paddle.

The powder component should be added gradually to the liquid to avoid lump formation.

Expancote* ACBA should be immediately used after mixing. Do not mix excess material than the required quantity, Keep mixing **Expancote* ACBA** during the application.

Application

The thoroughly mixed material should be applied with a suitable brush, roller or spray equipment to achieve a uniform coating on steel bars as, 1 – 2 coats are recommended for steel bar as an anti-corrosion protective coating, and as concrete / mortar bonding agent single coat is recommended, contact Fospak Expanchem for advice.

To obtain better results, apply material as per recommended rate of application.

Use a short stiff brush preferably 25 – 50 mm width for steel bars coating, and 100 – 150 mm for concrete surface.

Spray applications should use the correct mixing ratio to obtain satisfactory consistency, consult Fospak Expanchem for advice.

Cleaning

Expancote* ACBA should be removed from tools, equipment and mixers with **Fospak Solvent 102** immediately after use.

Precautions

Health and safety

Expancote* ACBA and **Fospak Solvent 102** should not come in contact with the skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapors. Some people are sensitive to resins, hardeners and solvents. Wear suitable protection clothing, gloves and eye protection.

Fire

Fospak Solvent 102 are flammable. Keep away from sources of ignition. No smoking near working area, in the event of fire, extinguish with CO² or foam. Do not use a water jet

Limitations

Expancote* ACBA should not be applied if the air or substrate temperature is greater than 45°C. This may reduce the pot life of the material and increase the viscosity of mixed material.

Expancote* ACBA should not be applied if the temperature of the substrate is below 5°C.

Expancote ACBA should not be applied where there is a likelihood of exposure to frost within 12 hours of the application.

Expancote* ACBA should not be applied in windy conditions where early-age dust adhesion may occur, or where rain is likely within 4 - 6 hours of application

Technical support

Expanchem offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

Estimating

Supply

Industrial kit	: 10 Kg Pack (Base, Hardener & Powder)
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Coverage

Expancote* ACBA

As corrosion protection	: 0.75 – 1.50 Kg / m ² / Coat
As bonding agent	: 0.50 – 1.00 Kg / m ²

Storage

Shelf life

Combined products have a shelf life of 12 months if kept in a dry store in the original, unopened packs.

Storage conditions

Store in cool, dry conditions, away from sources of heat and naked flames, in the original, unopened packs. If stored at high temperatures and/or high humidity conditions the shelf life will be reduced. **Expancote* ACBA** liquid components (Base & Hardener) should be protected from direct sunlight & frost, store the material between 20 – 25 °C.

Additional Information

Fospak manufactures a wide range of products which include:

- waterproofing membranes & waterstop
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialized flooring materials

Fospak additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Systematic approach to concrete repair features the following:

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Fospak Expanchem office - as below.

*Denotes the trademark registered

REGIONAL SALES OFFICES IN PAKISTAN:

Fospak (Pvt) Ltd.

Head Office

702, Business Avenue,
Block-6, PECHS,
Shahra-e-Faisal,
Karachi, Pakistan
Tel # +92-21-34528477, 34529859
Fax # +92-21-34522436
Email info.khi@fospak.com.pk

Lahore Sales Office

2nd Floor Sarwar Shaheed Plaza,
Cavalry Ground,
Main Boulevard,
Lahore Cantt, Lahore.
Tel # +92-42-36675773
Fax # +92-42-36675838
Email info.lhr@fospak.com.pk

Rawalpindi Sales Office

1st Floor, Al-Harmin Plaza,
Main Murree Road,
Rawalpindi
Tel # +92-51-9290592
Fax # +92-51-9290590
Email info.isb@fospak.com.pk

www.fospak.com

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