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Concrete Repoir

Products

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09/2001

EPROPATCH

Product Codes

EP501, EP502, Packaging listed overleaf

Description

Epropatch is a Portland cement based powder mix which is acrylic polymer and fibre reinforced. The mix design includes special shrinkage compensating components plus powerful plasticising agents which produce a workable mortar at low water content.

Epropatch is pre-packed in 25kg bags or pails ready for on site mixing. The material readily mixes with water to produce a trowelable mortar which then hardens without shrinking to give a high strength product.

Particular advantages of the product include quick and easy mixing with water producing a rapid set high strength repair mortar for all concrete surfaces. Epropatch is used to repair and replace damaged concrete where high early and final strengths are required plus a mix design which is chloride free and may be used in contact with reinforcing steel. The applied product conforms to the DTp specification BD27/86, part 6, for repair mortars and may be used as a repair mortar for vertical and horizontal surfaces. The repair mortar has good freeze-thaw stability, low water absorption and will give protection to exposed reinforcing steel.

Epropatch is resistant to oil, sea water and mild alkali attack.

| Uses include: | All concrete repairs that require a | | | |
|---------------|-------------------------------------|--|--|--|
| | fast setting high strength | | | |
| | cementitious mortar | | | |
| | Repair and replacement of | | | |
| | damaged concrete on roads and | | | |
| | bridge decks, industrial floors, | | | |
| | airports, docks and rail service | | | |
| | areas. | | | |
| | All situations requiring | | | |
| | conformance to DTp specification | | | |
| | BD27/86 part 6 for repair mortars. | | | |

Specification Outline

Concrete repairs and replacement shall be carried out using Epropatch as manufactured by Tecroc Products Ltd. The product must be stored, handled and used strictly in accordance with the manufacturer's instructions.

Quality Assurance

Tecroc Products Ltd is a firm of Assessed Capability. The Company's quality system conforms to BS EN 9002;1994 and is assessed by SGS Yarsley International Certification Services Ltd.

Typical Mortar Properties @ 20 °C

Compressive strength

Water Addition 3.0 litres per 25kg Epropatch

| 1 Hour 4 | Hours | 1 Day | 7 Days | 28 Days |
|-----------------------|--------------------|---------------------|---------------------|---------------------|
| 6N/mm ² 20 | 0N/mm ² | 37N/mm ² | 51N/mm ² | 55N/mm ² |

| Flexural Strength | $10N/mm^2$ |
|---|---------------------------|
| Coefficient of Thermal Expansion | 11 x 10 ⁻⁶ /°C |
| Density | 2150 kg/m ³ |
| Usable Life | 15 minutes |

Standards

Epropatch has been tested in accordance with the appropriate parts of the following standards B.S. 1881

Instructions For Use

Preparation

All contact surfaces must be sound, clean and provide a good mechanical key. Remove all loose material, plaster, paint and oily deposits. Roughen smooth concrete by scabbling or other mechanical means. Repairs, giving cover to exposed reinforcement, should be cut to a minimum of 15 mm in thickness.

Priming

The prepared concrete surface and reinforcing steel should be dampened then primed using a slurry coat of Epropatch. The slurry primer should be mixed in a suitable mixing vessel using a slow speed drill and Mortar Stirrer. Do not mix more than can be applied within the usable time, approximately 15 minutes at 20°C. Ensure repair mortar is applied before the primer coat has dried.

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Ground Engineer<u>ing</u>

09/2001

EPROPATCH

Instructions For Use Mixing

Epropatch is supplied in 25kg bags and 25kg pails. The water requirement to produce a workable mortar is 2.75 to 3.25 litres per 25 kg of dry material. Pour the required quantity of water into a suitable mixing vessel. Slowly add the powder to the water whilst continuously mixing. Mechanical mixing is recommended. Suitable mixers include a slow speed high torque drill with a Mortar Stirrer or a forced action mixer such as Creteangle or Mixal. Mixing should be continued for three minutes after all the powder has been added to the mixing water to obtain a cohesive and lump free mortar. Only mix sufficient material that can be placed within 15 minutes.

Placing

Apply the Epropatch mortar firmly into the repair area. It may be necessary to use a gloved hand to place and compact the mortar behind reinforcing steel and into narrow corners and edges. Initially finish the surface with a wooden float. Apply in layers of between 10mm and 50mm. Allow the mortar to stiffen then finish finally with a dampened steel float. For increased skid resistance a brush finish can be made after initial stiffening. In situations where thick layers are required to be built up, the surface of the under layer should be left with a wood float finish and should be scored. Subsequent primer and mortar layers may be applied as soon as the initial layer is firm enough not to distort under the new work. Alternatively up to 30% of Aggregate may be added to the Epropatch mix. A slight increase in water will be necessary.

Do not retemper stiffened material. Epropatch may be applied at temperatures between 5°C and 35°C. For application at temperatures outside this range contact the Technical Service Department. Epropatch should not be applied to frost filled surfaces or when temperature is 5°C and falling

Curing

Curing should be undertaken in accordance with good concrete practice. The curing regime should be applied as soon as finishing is complete. Suitable methods of curing include water spray, polythene sheeting, damp hessian and the spray applied concrete curing membrane, Polycure.

Precautions

Health and Safety

Epropatch is alkaline when mixed with water and should not come into contact with skin or eyes. Avoid inhalation of dust during mixing and wear safety glasses, dust mask and gloves. If skin contact occurs wash thoroughly with clean water. Should eye contact occur rinse immediately with plenty of clean water and seek medical advice.

Full health and safety data are given in Product Safety Data Sheet.

Fire

Epropatch is non-flammable

Yield

Epropatch is packed in 25kg bags or 25kg pails. The yield from these units is approximately 13 litres of mixed mortar.

Storage And Shelf Life

Epropatch will have a shelf life of 6 months in bags and 12 months in pails when kept in dry conditions at a temperature of 5°C to 45°C. Storage at higher temperatures or high humidity may reduce the shelf life.

Packaging And Ordering

Epropatch is supplied in:25kg BagProduct Code EP50125kg PailProduct Code EP502Polycure is supplied in 5 litre polybottles.5 litre polybottlesProduct code AF03

For further information and sales please contact your local Tecroc Products office as listed below.

Tecroc Products Ltd products are guaranteed against defective materials and manufacture. Products are sold subject to the Tecroc Products Ltd Terms and Conditions of Sale, copies of which are forwarded on invoice and are available on request. Tecroc Products Ltd endeavours to ensure that the above data and any further advice is correct, however, it cannot accept any direct or indirect liability for the use of its products as such usage is beyond its control.

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