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CI/SfB

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EPOXYPATCH FAST CURE

DESCRIPTION

EPOXYPATCH FAST CURE is a complete 3-pack, rapid curing, epoxy resin based mortar for durable and chemical resistant concrete repairs.

USES

EPOXYPATCH FAST CURE is recommended for rapid repairs to pavements, runways, floors, roads and bridges. It can also be used for bedding manhole frames, setting in street furniture and installing runway lighting. Its fast curing properties make it particularly suitable for use in cold weather or in situations where downtime must be kept to a minimum.

ADVANTAGES

* RAPID SETTING
  Repaired areas can be back in use quickly, normally in less than eight hours.

* GOOD ADHESION
  Strong adhesion to steel, concrete and rock.

* DURABILITY
  High chemical, impact and abrasion resistance.

* HIGH STRENGTH
  Will withstand high static and dynamic loading.

* RELIABILITY
  ISO 9002 Quality Assured Firm

PRODUCT DATA

General

Appearance: Grey, trowellable mortar.

Mixed Density: 2100kg/m^3

Application

Yield: 2.85 litres per 6kg pack

Coverage: 0.95m^2 per 6kg pack at 3mm thickness

Consistency: Fine, trowellable mortar.

Minimum Application Thickness: 3mm

Maximum Application Thickness: 100mm

Application Temperature: 0 to +25°C

Service Temperature: -30 to +55°C

Working Time: 20 minutes at 20°C

Initial Cure: 4 hours at 20°C

Trafficking: 8 hours at 20°C

Full Cure: 3 days

Typical Test Results

Compressive Strength N/mm2 to BS6319 Pt 2

	5 hrs	24 hrs	48 hrs	3 days	7 days
4°C	5	40	44	50	60
10°C	26	58	60	70	75
20°C	30	63	70	80	85

Tensile Strength: After 24 hours 15.0N/mm^2 to BS6319 Pt 7

Flexural Strength: After 24 hrs 20N/mm^2 to BS6319 Part 3.

Adhesion to Clean Concrete:

When fully cured the bond strength exceeds the tensile strength of concrete (Typically 3.5N/mm^2)

Chemical Resistance:

	24 hrs	48 hrs	7 days	14 days
Hydrochloric Acid 10%	U	U	U	U
Nitric Acid 10%	U	U	LA	LA
Sulphuric Acid 10%	U	U	LA	A
Acetic Acid 5%	U	U	U	LA
Citric Acid 5%	U	U	U	LA
Lactic Acid 5%	U	U	U	LA
Ammonium Hydroxide 5%	U	U	U	U
Ammonium Hydroxide 30%	U	U	U	U
Sodium Hydroxide 30%	U	U	U	U
Bleach Solution 5%	U	U	U	U
Brine 10%	U	U	U	U
Sugar Solution 10%	U	U	U	U
Detergents	U	U	U	U
Hydraulic Fluids	U	U	U	LA
Iso Propyl Alcohol	U	U	U	U
Linseed Oil	U	U	U	U
Lemonade Concentrate	U	U	U	U
Petrol and Jet Fuels	U	U	U	U

KEY: U Unaffected D Discoloured
A Attacked L Slightly

All specimens were fully immersed for the duration of the test. Tests were carried out under controlled laboratory conditions and are for guidance only. For details regarding resistance to chemicals other than those listed, contact the Technical Services Department.

NB:

1 In all cases of chemical spillage it is essential that the spillage be removed as quickly as possible and the surface washed down with water.

2 Keep water and chemicals off the surface before EPOXYPATCH FAST CURE has cured fully (7 days).

METHOD OF USE

Surface Preparation

Correct preparation is essential for the successful application of EPOXYPATCH FAST CURE

Concrete:
Must be sound and free from all traces of laitence, oil and grease. The use of SEALOCLEAN is recommended. Smooth and lightly contaminated surfaces should be scarified to present a good mechanical key and allow penetration of EPOXY GP PRIMER. Suitable methods of scarifying include scabbling, planing, shot or sand blasting and hot compressed air techniques. When used for fast curing patch repairs, saw or chisel into the substrate at the edges of the repair area to a depth of 3mm to eliminate the need to feather edge. Substrates saturated by oil and grease from previous usage present a particular problem and should be given special treatment such as HCA followed by degreasing.

EPOXYPATCH FAST CURE should NOT be used on concrete where hydrostatic pressure exists.

Steel:
Remove all loose scale and rust, preferably by grit blasting, grinding or with a needle gun back to a bright metal finish and clean down. Remove grease etc, with a suitable solvent. The primer should be applied immediately.

Priming

After preparation and before application of EPOXYPATCH FAST CURE a priming coat of EPOXY GP PRIMER should be brushed well into the surface.

This primer is supplied in two tins marked A and B. These must be thoroughly mixed together and applied by brush as soon as possible after mixing. Pot life is approximately $^{1}/_{2}$ hour depending on temperature, but treated surfaces will remain tacky for approximately 1 hour depending on temperature.

Mixing and Application

1 Thoroughly mix together the two liquid components Pack A and Pack B and empty into the mixer.

2 Add the aggregate in small portions to the mixer and continue mixing until a completely homogeneous mortar is obtained.

Suitable mixers are manufactured by Cretangle, Daines or Hobart. A high capacity, low speed drill and paddle may also be used.

NB:

1 On no account should any other aggregate be used.

2 The mixing time must be consistent for each batch whether mechanically or hand mixed.

3 The material has a short work life of approximately 20 minutes and until the

aggregate (Pack C) is added, the rate of reaction will be more rapid. Nevertheless it is essential to ensure Packs A and B are completely homogeneously mixed before proceeding further. Failure to do this will result in incomplete cure.

EPOXYPATCH FAST CURE must be applied to prepared surfaces at a minimum thickness of 3mm within $^{1}/_{2}$ hour after mixing and WHILST THE PRIMER IS STILL TACKY. For best results the mortar must be well compacted and the surface closed up by the use of a steel float or trowel. When fully cured after about 3 days cleaning can be carried out with the usual detergent solutions, but steam cleaning must be avoided.

NB:
The following points should be noted when trowelling EPOXYPATCH FAST CURE.

1 The steel trowel should be kept clean during application by regular wiping with a cloth containing THINNERS NO. 3.

2 Care should be taken to ensure thorough compaction but not to over-trowel as this can cause discolouration.

3 Avoid trowelling one mix more than another and trowel at approximately the same time after mixing. This will avoid colour variation between mixes.

4 Where joints are involved these should be dealt with according to normal practice.

5 Remember you only have a working time of 20 minutes.

CLEANING OF TOOLS

Immediately after use all tools and mixing equipment should be cleaned with THINNERS NO. 3.

STORAGE

EPOXYPATCH FAST CURE must be stored in cool, dry conditions away from moisture or direct sunlight. This product will have a twelve months shelf life when stored in these conditions in original unopened containers.

PACKAGING

EPOXYPATCH FAST CURE is available in 6kg packs, each pack consisting of three separate containers. Pack A and Pack B are located with the aggregate in an outer container.

EPOXY GP PRIMER is available in 500ml and 250ml packs, each pack consisting of two separate containers - Pack A and Pack B.

HANDLING

EPOXYPATCH FAST CURE contains liquid epoxy resin and a polyamine compound. Irritating to eyes, skin and respiratory system. Do not breathe fumes. Wear suitable gloves and eye/face protection. Wash hands thoroughly with soap and water after use. Harmful if taken internally. For further information refer to the Health and Safety Data Sheet.

EPOXYPATCH LIGHTWEIGHT PRIMER and EPOXY GP PRIMER contain liquid epoxy resin and a polyamine compound. Irritating to eyes, skin and respiratory system. Do not breathe fumes. Wear suitable gloves and eye/face protection. Wash hands thoroughly with soap and water after use. Harmful if taken internally. For further information refer to the relevant Health and Safety Data Sheet.

We endeavour to ensure that any advice, recommendation or information we may give in product literature is accurate and correct. However, we have no control over the circumstances in which our product is used and it is therefore important that the end user satisfy himself by prior testing that the product is suitable for his specific application and that the actual conditions of use are suitable. Accordingly, no responsibility can be accepted, or any warranty given by ourselves, our representatives, agents or distributors, other than that the product as supplied by us will meet our written specification. Products are sold subject to our standard conditions of sale and each purchaser and end user should at all times ensure that he has consulted our latest product instructions and safety information.

British Adhesives & Sealants Association