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EPOXYPATCH LIGHTWEIGHT

DESCRIPTION

EPOXYPATCH LIGHTWEIGHT is a complete 3 pack material consisting of epoxy resin, hardener and special lightweight aggregates which mix to an easy to apply mortar.

USES

EPOXYPATCH LIGHTWEIGHT has been specifically developed to provide renderings and patch repairs on vertical or overhead surfaces where the durability and strength of epoxy mortar is needed. It will resist chemicals, acid and solvent spillage and is recommended for use on jetties, power stations, high and low rise buildings, bridges etc. It has a low density and it is used with a special tack coat which provides excellent adhesion to the substrate. Architectural details and mouldings can be repaired and recreated using EPOXYPATCH LIGHTWEIGHT. The Epoxypatch Lightweight system can be applied to dry, damp and wet surfaces provided that there is no standing water.

ADVANTAGES

- * **VERSATILE**
May be used for high build layers in vertical and inverted situations.
- * **QUALITY**
Pre-weighed quality controlled materials ensure consistency and reduce risk of site errors.
- * **CHEMICALLY RESISTANT**
Unaffected by a wide range of acids, alkalis and industrial chemicals.
- * **STRONG AND PERMANENT**
Typically twice as strong as good concrete, Resistant to abrasion and impact.

- * **WATERPROOF**
Will cure under damp conditions. Cured surface is impermeable to water.
- * **RELIABILITY**
ISO 9002 Quality Assured Firm.

PRODUCT DATA

General

Appearance : Natural Grey

Mixed Density : 1300kg/m³

Application

Coverage : 1.25m² per 5kg pack at 3mm thickness.

Consistency : Low density, fine buttery mortar.

Working Time : 30 minutes at 20°C

Minimum Application

Thickness : 3mm

Maximum Application

Thickness : 150mm

Application

Temperature : +4 to +25°C

Service

Temperature : -20 to +45°C

Initial Cure : 24 hours

Full Cure : 7 days

Typical Test Results at 20°C

Compressive Strength N/mm² to BS6319 Pt 2.

	24hrs	48hrs	3 days	7 days
4°C	0	4	13	37
10°C	0	6	20	42
20°C	8.5	19	27	45

Tensile Strength to BS6319 Pt 7:

After 7 days at 25°C - 15N/mm²

Shear Strength:

After 7 days at 25°C - 17N/mm²

Adhesion to clean concrete:

When fully cured the bond strength exceeds the tensile strength of concrete. (Typically 3.5N/mm²)

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. Experiments 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: 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.

Carbon Dioxide Diffusion Equivalent:

6mm - 12mm cover of EPOXYPATCH LIGHTWEIGHT gives similar protection to over 25mm thickness of concrete or cement/sand mortar.

METHOD OF USE

Surface Preparation

Correct preparation is essential for the successful application of EPOXYPATCH LIGHTWEIGHT.

CONCRETE

Must be sound and free from all traces of laitence, grease and contaminants. Smooth surfaces should be scarified to present a good mechanical key and allow penetration of EPOXYPATCH LIGHTWEIGHT PRIMER. In order to produce a clean/defined patch repair, saw or chisel into the substrate at the edges of the repair area to a depth of a minimum of 3mm.

EPOXYPATCH LIGHTWEIGHT should NOT be used:

1. Where its application would trap moisture within the concrete substrate and where there is no escape route through which the moisture could evaporate.
2. In situations where hydrostatic pressure could break the bond between the EPOXYPATCH LIGHTWEIGHT and the substrate.

STEEL

Remove all loose scale and rust, preferably by shot 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 LIGHTWEIGHT a priming coat of Epoxypatch Lightweight 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 15-20 mins. depending on temperature, but treated surfaces will remain tacky for approximately 30 - 40 minutes 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 Daines, Cretangle or Hobart. A high capacity, low speed drill and paddle may also be used.

Leave the mixed material to stand for 2-3 minutes before use, to develop the best working structure.

Do not attempt to split or part mix packs.

NB: On no account should any other aggregate be used and take care not to lose aggregate whilst mixing. Loss of aggregate could cause poor workability and variability in the mix.

EPOXYPATCH LIGHTWEIGHT must be applied to prepared surfaces at a minimum thickness of 3mm, within 20 minutes after mixing and **WHILST THE PRIMER IS STILL TACKY**. The surface may then be brought to the desired finish by use of a clean steel trowel that is regularly wiped with a cloth containing THINNERS NO. 3. When fully cured EPOXYPATCH LIGHTWEIGHT can be overpainted with a normal paint system.

CLEANING OF TOOLS

Tools, brushes etc, should be cleaned with THINNERS NO. 3 as soon as possible after use.

STORAGE

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

PACKAGING

EPOXYPATCH LIGHTWEIGHT is available in 5Kg packs, each pack consisting of three separate containers. Pack A and Pack B are located with the aggregate in an outer container. EPOXYPATCH LIGHTWEIGHT PRIMER is available in 250ml and 500ml packs, each pack consisting of two separate containers, Pack A and Pack B.

HANDLING

EPOXYPATCH LIGHTWEIGHT 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.

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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.

