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TECHNICAL DATA SHEET TDS042  
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# EPOXYPATCH GENERAL PURPOSE

## DESCRIPTION

EPOXYPATCH GENERAL PURPOSE is a complete 3 pack epoxy resin based mortar containing special lightweight aggregates for durable and chemical resistant concrete repairs.

## USES

EPOXYPATCH GENERAL PURPOSE is intended for use where small patch repairs are required to concrete, brick, natural stone and similar materials. The product has excellent adhesion and can be used for horizontal, vertical and overhead repairs such as:

- Repair of spalled concrete beams, columns panels and piers.
- Repair of reinforced concrete without adequate cover to reinforcement.
- Filling holes and levelling worn and damaged surfaces.
- Patch repairs to existing epoxy resin mortars.

## ADVANTAGES

- \* **GOOD WORKABILITY**  
Quick and easy to apply to a high standard of finish.
- \* **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.

## COVERAGE

Coverage: 0.9m<sup>2</sup> per 4kg pack at 3mm thickness  
Yield: 2.7 litre per 4kg pack.

## TECHNICAL DATA

|   |   |      |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
|---|---|------|------|------|-------|----|----|-------|----|----|--------|----|----|--------|----|----|
| Appearance:   | Light coloured cohesive mortar.   |      |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
| Mixed Density:  | 1500kg/m <sup>3</sup>   |      |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
| Application Thickness:  | Minimum: 3mm<br>Maximum: 100mm  |      |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
| Compressive Strength:<br>( BS6319 Part 2) @ 20°C                | <table><tr><td></td><td>10°C</td><td>20°C</td></tr><tr><td>24hrs</td><td>12</td><td>24</td></tr><tr><td>48hrs</td><td>28</td><td>36</td></tr><tr><td>3 days</td><td>38</td><td>44</td></tr><tr><td>7 days</td><td>47</td><td>50</td></tr></table> |      | 10°C | 20°C | 24hrs | 12 | 24 | 48hrs | 28 | 36 | 3 days | 38 | 44 | 7 days | 47 | 50 |
|   | 10°C  | 20°C |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
| 24hrs   | 12  | 24   |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
| 48hrs   | 28  | 36   |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
| 3 days  | 38  | 44   |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
| 7 days  | 47  | 50   |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
| Tensile Strength:<br>(to BS6319 Part 7)                         | 15N/mm <sup>2</sup> : 7 days@ 20°C  |      |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
| Recommended Application Temperature<br>(DO NOT APPLY BELOW 4°C) | +4 to +25°C   |      |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
| Service Temperature:  | -30 to +45°C  |      |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
| Open Work Time at 20°C:   | 25 minutes at 20°C  |      |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
| Initial Cure:<br>Full Cure:                                     | 24 hours<br>7 days  |      |      |      |       |    |    |       |    |    |        |    |    |        |    |    |
| Adhesion to Concrete  | When fully cured the bond strength exceeds the tensile strength of concrete.  |      |      |      |       |    |    |       |    |    |        |    |    |        |    |    |

## PACKAGING

EPOXYPATCH GENERAL PURPOSE is available in 4kg 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, 1 litre and 5 litre packs, each pack consisting of two separate containers - Pack A and Pack B.

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 L - Slightly A - Attacked

All specimens were fully immersed for the duration of the test. Tests were carried out under controlled laboratory conditions 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.

**METHOD OF USE**

**Surface Preparation**

Correct preparation is essential for the successful application of EPOXYPATCH GENERAL PURPOSE.

**Concrete:**

Must be sound and free from all traces of laitance, oil and grease. 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 blasting and hot compressed air techniques. When used for patch repairs, saw or chisel into the substrate at the edges of the repair area to a minimum 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 GENERAL PURPOSE should not be used where its application would trap moisture within the concrete substrate or in situations 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 GENERAL PURPOSE, a priming coat of EPOXY GP PRIMER should be brushed well into the surface.

EPOXY GP PRIMER is available in 500ml, 1litre and 5 litre two component packs. EPOXY DPM PRIMER is available in 5 kg two component packs.

The 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 ½ hour depending on temperature, but treated surfaces will remain tacky for approximately one hour depending on temperature.

**MIXING**

All mixing must be carried out using a forced action pan mixer, or slow speed drill and suitable paddle. Pack A should be stirred initially to redisperse any settled pigment. Empty Pack A and Pack B into mixer whilst mixer is running. Continue mixing for 1-2 minutes.

Add the aggregate in small portions. Continue mixing until a completely homogeneous mortar is obtained. Mix for 3 to 5 minutes. DO NOT OVERMIX, add any other aggregate, split or part mix packs.

Suitable mixers are manufactured by Refina, Cretangle or Pennine.

## **APPLICATION**

EPOXYPATCH GENERAL PURPOSE is applied to a minimum thickness of 3mm, whilst the primer is still tacky. Spread and compact to the required thickness. Close up the surface of the mortar using a clean steel trowel regularly wiped with a cloth containing THINNERS No. 3.

Care should be taken to ensure thorough compaction without over trowelling as this can cause discolouration.

## **CLEANING OF TOOLS**

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

## **STORAGE**

EPOXYPATCH GENERAL PURPOSE 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.

## **HANDLING**

EPOXYPATCH GENERAL PURPOSE contains liquid epoxy resin and a polyamine compound. Please refer to the relevant Health and Safety Data Sheet for detailed information regarding the handling of this product.

*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.*

