

# THOR POURING GRADE RESIN

## DESCRIPTION

A two part free mix rapid curing concrete repair system based on a high performance polyester resin. Specially formulated for its extremely high strength especially in compression and tension. Ideal for a number of applications including bonding building materials (floor tiles etc) and anchoring bolts, starter bars, machinery etc. This corrosion resistant material offers fast installations achieving early high strength.

## OUTSTANDING FEATURES

- **Rapid Curing - suitable for emergency repairs**
- **High strength**
- **Chemical resistant**
- **Excellent impact and wear resistance**
- **Non-dusting surface**
- **Excellent self-levelling properties**

## PREPARATION

### Concrete Repair

Remove all debris and dust from the area to be repaired.

Any loose or friable concrete should be removed to give a sound surface. Prior to application the area must be clean, dry and sound.

The mixed product may be poured onto the area to be repaired. Although it is self levelling a trowel may be used to spread the material evenly.

For vertical anchoring applications pour the mixed grout into the holes. To avoid air pockets ram the material firmly into the bottom of the hole. Fixings should be inserted using a rotating action.

## ANCHORING

### Preparation

1) Drill hole to the correct diameter and depth, ideally using a rotary percussion machine. For optimum



results the hole must be coarse sided. If holes are produced by diamond drilling the surface should be thoroughly roughened.

2) After drilling the hole all dust and debris should be removed using a hand air pump or a stiff rotary brush.

3) All bars should be clean and free from oil or grease and all flaking rust should be removed. Steel bars used should be deformed such as those manufactured to BS 4449. Threaded bars may be used, but should be chisel-ended to prevent them from being unscrewed from the cured resin.

## MIXING

Pour the resin into the large plastic container provided or a suitable clean mixing vessel. Slowly add the powder component, stirring continuously. On the final addition of powder, stir for a further 2 minutes. In order to achieve the typical properties quoted below it is recommended that only full units are mixed at one time. Clean all tools using a suitable solvent, which should be done within the gel times quoted below.

## APPLICATION

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## TECHNICAL DATA

Mixing ratio by weight powder to resin	2:1
Compressive strength @ 1 hour	90 N/mm <sup>2</sup>
Compressive strength @ 24 hours	105N/mm <sup>2</sup>
Tensile strength @ 24 hours	12 N/mm <sup>2</sup>
Bond strength	Concrete failure
Mixed volume	2.5 Litres
Gel time (minutes)	5°C 60 10°C 30 20°C 20
Cure time (minutes)	5°C 180 10°C 120 20°C 60

The Ultimate pull out strength (Tension) is varied by:

1. The strength of both the substrate and bar/stud.
2. The length of the resin bond to bar.
3. Hole preparation.
4. Anchor separation.

Safety factors should be considered depending on the strength and nature of the substrate. Due to the inconsistent nature of hollow blocks and bricks tension figures may vary. Site testing should be carried out where necessary to establish particular suitability. In order to achieve maximum performance the distance between the centres of the anchors should be a minimum of 2.0 x embedment depth and 1.25 x the embedment depth for the minimum distance from edges.

## STORAGE

Store in a dry area between 5°C and 25°C. Do not expose to direct sunlight. Storage at higher temperatures will reduce the shelf life.

## HEALTH AND SAFETY DATA

This resin contains styrene and is flammable. Do not smoke and do not allow sparks or naked flames to come into contact with this material. Avoid breathing vapour and wear suitable protective clothing such as gloves and overalls. On contact with skin, wash off immediately with plenty of soap and water. For further

information refer to the Material Safety Data Sheet.

## IMPORTANT

The information and data given is based on our own experience, research and testing and is believed to be reliable and accurate. However, we cannot know the varied uses to which its products may be applied, or the methods of application used, no warranty as to the fitness or suitability of its products is given or implied. It is the users responsibility to determine suitability of use. For further information, please contact our Technical Department.

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