

LIGHTWEIGHT MORTAR RAPID

Description

Lightweight Mortar Rapid, from Parex, is a fast setting, low density concrete repair mortar. The mix design produces a high build, polymer and fibre modified, cementitious concrete repair system also capable of being applied as a fair faced finish in vertical and overhead situations. The incorporation of special shrinkage compensating components plus powerful plasticising agents produces a workable mortar at low water content. The placed product will give protection to exposed reinforcing steel preventing further deterioration. Lightweight Mortar Rapid is a one pack product ready for on site mixing only requiring the addition of water. The designed grading and the use of lightweight fillers enable high build vertical and overhead applications to be made achieving high quality finishes. Lightweight Mortar Rapid is chloride free and can be safely used in contact with steel reinforcement. The placed mortar has good freeze-thaw stability and low absorption giving protection against atmospheric pollutants.

Uses include: Reinstatement of damaged concrete. High build applications in vertical and overhead situations. Placing areas of fair faced finishing. Insitu repairs of sculpted elements.

Typical Mortar Properties @ 20°C

Compressive Strength

Water content 3.0 litres per 18kg bag

1 Hour	1 Day	7 Days	28 Days
9N/mm ²	25N/mm ²	33N/mm ²	42N/mm ²

Density 1550 kg/m³
Coefficient of Thermal Expansion 8-11 x 10⁻⁶/°C
Useable Life 10 minutes

Standards

Lightweight Mortar Rapid conforms to the requirements of the Department of Transport Standard BD27/86, clause 4, "Materials for the Repair of Concrete Highway Structures" and has been tested in accordance with the appropriate parts of British Standards: B.S. 1881 B.S. 6319

Specification Outline

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

Quality Assurance

Parex Ltd is a firm of Assessed Capability. The Company's quality system conforms to BS EN ISO 9001:2000 and is assessed by SGS Ltd Systems and Services Certification.

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. Reinforcing steel should be exposed to at least two thirds of its circumference in a sound concrete background. The steel should be totally exposed in areas where concrete repairs are deeper than the steel embedment depth. Corroded reinforcing steel should be cleaned back to bright metal. Cleaned steel should be protected by Steel Primer. Roughen smooth concrete by scabbling or other mechanical means. Repair edges should be cut back to avoid feather edging.

Priming

The prepared concrete surface and reinforcing steel should be primed using Acrylic Latex. The primer may be used as supplied and is applied using a stiff bristle brush. *Ensure Lightweight Mortar Rapid is applied as soon as the Acrylic Latex has become tacky and before the priming coat has dried.* (normally 10 to 15 minutes at 20°C)

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Mixing

Lightweight Mortar Rapid is supplied in 18kg bags. The water requirement for each bag to produce the mortar is 3.0 litres. Pour the required quantity of clean 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 the Creteangle. Mixing should be continued after all the powder has been added to the mixing water until a smooth lump free mortar is achieved.

Part bag mixing should not be used.

Application

Apply the Lightweight Mortar Rapid firmly onto the primed 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. The mortar will stiffen rapidly within approximately 10minutes of mixing (dependant upon temperature and ambient conditions) and may be finished with a dampened steel trowel.

Where thicker 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 Lightweight Mortar Rapid layers may be applied as soon as the initial layer is firm enough not to be disturbed under the new work.

The layer thickness of the Lightweight Mortar Rapid should not be less than 10mm. Joint sections may be filled in thicknesses up to 75mm. Small pockets can be filled in thicknesses up to 125mm. Lightweight Mortar Rapid may be applied at temperatures between 5°C and 35°C. For application at temperatures outside this range contact the Technical Service Department.

Curing

Curing should be undertaken in accordance with good concrete practice. The curing regime should be applied as soon as finishing is complete. For large areas, as each half square metre is completed curing should be started. Suitable methods of curing include water spray, polythene sheeting and the spray applied concrete curing membrane Polycure.

Precautions

Health and Safety

Lightweight Mortar Rapid 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 details are given in the Product Safety Data Sheet.

Fire

Lightweight Mortar Rapid is non-flammable.

Yield

Lightweight Mortar Rapid is packed in 18kg bags. At water content of 3.0 litres per bag the yield obtained from these units will be approximately 13.50 litres of mixed material.

Storage and Shelf Life

Lightweight Mortar Rapid will have a shelf life of 6 months 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

Lightweight Mortar Rapid is supplied in:

18kg Bags Product Code TP127

Steel Primer is supplied in:

5kg Pails Product Code ACR04

Acrylic Latex is supplied in:

25 litre polybottles Product Code ACR08

Polycure is supplied in:

5 litre polybottles Product Code AF03

For further information and sales please contact your local Parex office, or distributor, as listed below.

Parex Ltd products are guaranteed against defective materials and manufacture. Products are sold subject to the Parex Ltd Terms and Conditions of Sale, copies of which are forwarded on invoice and are available on request. Parex 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.

Parex Ltd
Holly Lane Industrial Estate
Atherstone
Warwickshire
CV9 2RN
Tel: 01827 711755
Fax: 01827 711330

Web site: www.parex.co.uk

Irish Distributor
Construction Chemical Supplies
Unit 219
JFK Road JFK Industrial Est
Dublin 12
Tel: 00 353 1 450 3896
E mail: conchem@eircom.net

Web site: www.constructionchemicals.ie