



Specialist Construction Supplies for Repair, Maintenance, Building & Infrastructure

Lightweight Mortar 18 Data Sheet

Specification notes

Product: **Lightweight Mortar 18**

Supplier:

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LIGHTWEIGHT MORTAR 18

Product Codes

TP87, Packaging listed overleaf

Description

Lightweight Mortar 18 is a Portland cement polymer modified and fibre reinforced powder mix. The mix design includes special shrinkage compensating components plus powerful plasticising agents that produce a workable mortar at low water content. The mix design produces a medium density high build polymer modified cementitious concrete repair system developing compressive strengths of 19N/mm² at 1 day and 45N/mm² at 28 days. The product is capable of being applied as a fair faced finish in vertical and overhead situations. The placed product will give protection to exposed reinforcing steel preventing further deterioration. Lightweight Mortar 18 is a one pack product ready for onsite 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 18 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 in areas of fair faced finishing.
Joint filling and facing between precast concrete elements.

Typical Mortar Properties @ 20°C

Compressive Strength

Water content 3.75 litres per 25kg bag

1 Day	7 Days	28 Days
19N/mm ²	32N/mm ²	45N/mm ²

Tensile Strength @ 28 Days 3.0N/mm²

Flexural Strength @ 28 Days 7.0N/mm²

Density 1850 kg/m³

Coefficient of Thermal Expansion

8-11 x 10⁻⁶/°C

Useable Life 45 minutes

Standards

Lightweight Mortar 18 has been tested in accordance with the appropriate parts of British Standards: EN 12390, BS 6319

Specification Outline

Concrete repairs and replacement shall be carried out using Lightweight Mortar 18 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 9001:2008 and is assessed by UK CARES LTD.

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 18 is applied as soon as the Acrylic Latex has become tacky and before the priming coat has dried.

LIGHTWEIGHT MORTAR 18

Instructions For Use

Mixing

Lightweight Mortar 18 is supplied in 25kg bags. The water requirement for each bag to produce the mortar is 3.75 to 4.25 litres. Pour the required quantity of 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 18 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. Initially finish the surface with a wooden trowel. Allow the mortar to stiffen then finish finally 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 18 layers may be applied as soon as the initial layer is firm enough not to distort under the new work.

The layer thickness of the Lightweight Mortar 18 should not be less than 10mm. Joint sections may be filled in thicknesses up to 50mm. Small pockets can be filled in thicknesses up to 100mm. Where higher application thickness is required Lightweight Mortar 14 should be used.

Lightweight Mortar 18 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 18 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 18 is non-flammable.

Yield

Lightweight Mortar 18 is packed in 25kg bags. At a water content of 3.75 litres per bag the yield obtained from these units will be approximately 16.0 litres of mixed material

Storage And Shelf Life

Lightweight Mortar 18 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 18 is supplied in:
25kg Bags Product Code TP87

Steel Primer is supplied in:
5kg Tubs 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 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.