

TECHNICAL DATA

Revision Date 01/2008

ACRYLIC MORTAR SUMMER - WINTER

Product code

ACR02 (Winter) ACR03 (Summer) Packaging listed overleaf.

Description

Acrylic Mortar is a pre-mixed polymer modified cementitious mortar powder. The mix design includes Portland blastfurnace and microsilica cements, graded high purity sands, plus a synergistic blend of admixtures including a spray-dried acrylic polymer and powerful corrosion inhibitors. The product is pre-blended and ready for mixing on site to produce a non-shrink homogeneous mortar which hardens to a strong bonding and impervious material.

Acrylic Mortar complies with BD27/86 pt 6 Department of Transport Specification for Bridge Repairs.

Acrylic mortar is specially formulated for the repair and protection of reinforced concrete. The mix contains no chlorides, ferrous metal or other deleterious materials. The product is easily mixed on site to produce a dense impermeable material which resists chemical attack from carbon dioxide, sulphur dioxide, chlorides, sulphates and nitrates. The product incorporates non ASR reactive aggregates and the equivalent sodium oxide content is less than 3kg/m³. Acrylic Mortar is non flammable.

Uses include:

- Repair of reinforced concrete, cementitious surfaces, masonry and brick.
- Protection of exposed reinforcing steel.
- Protection of concrete in marine and chemically aggressive environments.

Specification Outline

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

Quality Assurance

Tecroc Products 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.

Standards

Acrylic Mortar has been tested in accordance with the appropriate parts of BS 1881, BS 4550, ASTM C827, ASTM C230, BD27/86, USAEC (39-81), ISO DIN 7031, BS EN 12390

Typical Mortar Properties @ 20°C

Consistency

Water Content %	Ltr/25kg Bag	Consistency
14	3.5	Good Mortar

Consistency Life

Water Content %	Ltr/25kg Bag	Mortar Gently Agitated
14	3.5	30 Minutes

Set times (BS 4550)

Water content %	Ltr/25kg bag	Initial Set	Final Set
14	3.5	35 Minutes	45 Minutes

Compressive Strength

Water Content %	N/mm ² 1 Day	N/mm ² 3 Days	N/mm ² 7 Days	N/mm ² 28 Days	N/mm ² 56 Days
14	10.0	20.0	35.0	52.0	55.0

Density @ Water Content 14%: 2150kg/m³

Shrinkage: Acrylic Mortar is classed as non shrink (<0.01%)

Air Content @ 10 Minutes: 1.4%

Bond Strength: 2.0N/mm²

Modulus of elasticity: 26kN/mm²

Resistivity: 19.1kohm-cm (as per Midland Link Specification)

Coefficient of Thermal Expansion: 7.9x10⁻⁶/°C

Water Permeability: 7.53x10⁻¹⁵m/S

Coefficient of Chloride Ion Diffusion: 9.2x10⁻¹⁴m²/S



Grouts



Structural Support Mortars



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ACRYLIC MORTAR

SUMMER - WINTER

Instructions For Use

A full method statement is available from Tecroc Products on request.

General Preparation

Contact surfaces should be sound, clean and provide a mechanical key. Remove all loose material, plaster, paint and oily deposits.

Preparation Around Steel Reinforcement

If corroded, steel is exposed remove concrete to a depth of not less than 20mm behind the steel. Remove rust and scale from steel surface using abrasive blasting or high pressure water jetting where chloride corrosion has occurred. Extend the perimeter of the repair to not less than 50mm from the edge of the repair at which corrosion has taken place. Saw cut the repair edges to at least 5mm to avoid feather edging.

Mixing

Place the required quantity of water in a suitable mixing vessel. Slowly add the powder to the water whilst continuously mixing. Suitable mixers include a slow speed high torque (1kW) drill with a Mortar Stirrer. After all the powder has been added mix for a further 2 minutes. Mixing by hand is not recommended.

Placing

Immediately before placing thoroughly wash and soak the concrete substrate then remove all standing water. Using mixed mortar, apply a contact coat on the repair surface using a stiff bristle brush. Work well into the concrete substrate and steel of the repair area. On top of the contact coat apply the mixed mortar using a trowel or float. Compact the mortar and build up to the required cover, not less than 20mm over the steel. **Do not allow the contact coat to dry before application of the topping. Do not rework the applied mortar once it has set.**

Curing.

After application has been completed the repair surface must be cured immediately with Polycure sprayed at a rate of 10m² per litre. In adverse weather conditions such as drying winds or high temperatures apply a second coat of Polycure after the first coat has dried. Mixing equipment and tools should be cleaned and washed with plenty of water as soon as possible after finishing work.

Finishing

Rendercoat or Skim Coat Plus may be used to produce an attractive cosmetic finish to the overall repair area. Additional Technical Product Data Sheets are available for these products and their applications.

Precautions

Health and Safety

Acrylic Mortar 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 data are given in Product Safety Data Sheet.

Fire

Acrylic Mortar is non-flammable

Yield

Acrylic Mortar is packed in 25kg bags. The yield obtained is approximately 13.25 litres of mixed material.

Storage And Shelf Life

Acrylic Mortar 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 and high humidity may reduce the shelf life.

Packaging And Ordering

Acrylic Mortar is supplied in 25kg bags:

Winter Grade: Product Code ACR02

Summer Grade: Product Code ACR03

Polycure is supplied in 5 litre poly bottles:

Polycure 5 litre: Product Code AF003

For further information and sales please contact your local Tecroc Products office as listed below.

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

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