



GROUT



Structural/Sealing
Mortars



Concrete Repair
Products



Construction
Adhesives



Resin Et
Consolidants
Anchors



Highway
Products



Coatings



Waterproofing



Ground
Engineering

TECHNICAL DATA

2.1.1

Revision Date 11/2002

100 NEWTON MORTAR

Product Codes

TP91, Packaging listed overleaf

Description

100 Newton Mortar is a specially formulated, Portland cement powder mix. The mix design consists of a blend of fine and ultra-fine cements, a high quality graded sand, and a set of synergistic admixtures. The mix designs include special shrinkage compensating components plus powerful plasticising agents which produce a workable mortar at low water content. The product is pre-packaged in 25kg durable, moisture resistant bags ready for on site mixing only requiring measured water addition. The material readily mixes with water to produce an easily placed workable mortar which hardens without shrinking to give an ultra high strength product.

Once hardened and cured excellent mechanical and bond strengths are achieved giving resistance to static and dynamic stresses. The use of non-reactive sands gives resistance to ASR attack plus a chloride free mix design enables the use of 100 Newton Mortar in contact with all reinforcing steels.

Concrete and steel sections are protected from deterioration with good freeze-thaw stability plus resistance to oil and many chemical environments. Placement thickness may be in the nominal range 20mm to 75mm.

Uses include:

- Heavy mechanical base plates.
- Bridge bearing seats.
- Crane rail support.
- Replacement of damaged concrete.
- Protection of concrete - steel elements.
- Wearing surfaces in steel framed sections

Specification Outline

Concrete support and replacement shall be carried out using 100 Newton 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 9002:1994 and is assessed by SGS Yarsley International Certification Services Ltd.

Typical Mortar Properties @ 20°C

Compressive Strength

Water content 3 litres per 25kg bag

1 Day	3 Days	7 Days	28 Days
70N/mm ²	90N/mm ²	95N/mm ²	105N/mm ²

Tensile Strength @ 28 Days 4.0N/mm²

Flexural Strength @ 28 days 10.0N/mm²

Coefficient of Thermal Expansion

10x10⁻⁶/°C

Density 2250kg/m³

Usable Life 30 minutes

Setting times Dependent on temperature

initial 5 hours

Final 7 hours

Standards

100 Newton Mortar has been tested in accordance with the appropriate parts of the following standards: BS1881, BS4550

Instructions For Use

Preparation

Contact surfaces must be sound, clean and provide a good mechanical key. Remove all loose material, plaster, paint and oily deposits. Clean back corroded steel to bright metal. Cleaned steel should be protected by Steel Primer. Cut back section edges to avoid feather edging. Dampen concrete substrate before placing.

Mixing

100 Newton Mortar is supplied in 25kg bags. The water requirement to produce the mortar is: 2.75 to 3.25 litres of water

Pour the required quantity of water into a suitable mixing vessel. Slowly add the powder to the water whilst continuously mixing. Suitable mixers include a slow speed high torque drill with a Mortar Stirrer or a forced action mixer such as the Creteangle.

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TECROC
PRODUCTS

100 NEWTON MORTAR

Instructions For Use

Placing

Apply the mixed mortar firmly onto the work area. It may be necessary to use a gloved hand to place and compact the mortar into narrow corners and edges. For exposed sections initially finish the surface with a wooden float. Allow the mortar to stiffen then finish finally with a dampened steel float. In situations where thick 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 mortar layers may be applied as soon as the initial layer is firm enough not to distort under the new work.

100 Newton Mortar may be applied at temperatures between 5°C and 35°C. For application at temperatures outside this range contact the Technical Service Department.

Curing

For exposed sections curing should be undertaken in accordance with good concrete practice. The curing regime should be applied as soon as finishing is complete. Suitable methods of curing include water spray, polythene sheeting and the spray applied concrete curing membrane Polycure.

Precautions

Health and Safety

100 Newton 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

100 Newton Mortar is non-flammable

Yield

100 Newton Mortar is packed in 25kg bags. The yield obtained from these units at a water addition of 3 litres per bag:
25kg unit, approximately 12.5 litres of mixed material.

Storage And Shelf Life

100 Newton Mortar will have a shelf life of 12 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

100 Newton Mortar is supplied in 25kg bags
25kg bag Product Code TP91

Polycure is supplied in 5 litre polybottles
5 litre polybottles Product code AF03

Steel Primer is supplied in 5kg and 20kg packs
5kg Pack Product Code ACR04
20kg Pack Product Code ACR01

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 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.

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