

TECHNICAL DATA

Revision Date 01/2008

FASTSET CEMENT

Product Codes

DH58 Packaging listed overleaf.

Description

Fastset Cement is a pre-mixed Portland cement mix containing special additives. When used to produce concrete or mortar mixes Fastset Cement will harden rapidly to achieve compressive strengths in excess of 20N/mm² in 1 hour and in excess of 40N/mm² in 1 day. The early age strength gain will allow following works to proceed in shorter times than would be possible using accelerated Portland cement concretes.

Fastset Cement mixes are produced on site using standard concrete mixers and are placed and compacted as normal concretes. The product is chloride free and can be safely used to produce steel reinforced sections. The compressive strength gain will allow 1 hour opening of roads to vehicular traffic.

The Fastset Cement is bulked out with concreting sand for a mortar mix or concreting sand and aggregate to produce a concrete mix. The use of on site mixing produces an extra rapid hardening system at an economic cost. Mix designs up to 6 parts sand /aggregate to 1 part Fastset Cement may be used. Section thicknesses of 10mm to 250mm can be placed depending on particular mix design.

- Uses include:**
- Re-bedding of raised manhole frames
 - Bedding of frames in new roads
 - Support of road furniture
 - Motorway gantry bases
 - Manhole and electrical junction box footings

Typical Mortar Properties @ 20°C

Compressive Strength

Mix Design: Fastset Cement 25kg
 20 to 10mm Gravel 50kg
 Medium Grade Concreting Sand 25kg
 Water addition: 7 Litres

1 Hour	1 Day	7 Days	28 Days
23 N/mm ²	44 N/mm ²	52 N/mm ²	61 N/mm ²

Concrete Density: 2280kg/m³

Specification Outline

Concrete support, bedding and levelling shall be carried out using Fastset Cement as manufactured by Tecroc Products Ltd. The product must be stored, handled and placed in designed mixes 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

Fastset Cement has been tested in accordance with appropriate parts of BS 1881.

Instructions For Use

Preparation

Laitance and all loose material including dust, oil and grease should be removed in order to produce a sound substrate. The work area should be pre-wetted taking care to remove any standing water before placing the Fastset Cement concrete or mortar.

Mixing

Hand mixing may be undertaken, but care should be exercised to ensure that the mix is fully wetted out without the use of excess water. Thorough hand mixing can be carried out using a clean spot board. For small mixes mechanical mixing may be carried out in a suitable container using a slow speed high torque drill and Mortar Stirrer.

For larger mixes place the required quantity of water in a suitable forced action mixer such as a Cretangle. Slowly add the powder to the water whilst continuously mixing. After all the powder has been added mix for a further minute to ensure a smooth lump free consistency is achieved.

The concrete or mortar should be placed within approximately 10 minutes from start of mixing. The working time may be extended in cold ambient conditions and may be slightly shortened in hot ambient conditions. For cold weather working warm mixing water at up to 30°C may be used.



Grouts



Structural Support Mortars



Concrete Repair Products



Construction Adhesives



Resin Et Cementitious Anchors



Highway Products



Coatings



Waterproofing



Ground Engineering

FASTSET CEMENT

Instructions For Use Placing

Head Office
 Holly Lane Industrial Estate
 Atherstone
 Warwickshire
 CV9 2RN
 Tel: 01827 711755
 Fax: 01827 711330

Irish Distributor
 Construction Chemical Supplies
 Unit 219
 JFK Road JFK Industrial Est
 Dublin 12
 Tel: 00 353 1 450 3896
 Fax: 00 353 1 450 3298

Web site: www.tecroc.co.uk

E-mail: enquiries@tecroc.co.uk

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Road frames

Set suitable levelling shims onto the working surface ready to receive the frame or unit. Place the mixed concrete or mortar onto the prepared surface and lower the frame or unit into place and knock down onto the pre-set shims to line and level. The bed thickness applied in a single application should be between 10mm to 250mm. Thicker support beds can be achieved by applying further material as soon as the lower bed has hardened sufficiently not to distort under the additional work.

The placed concrete or mortar will have hardened sufficiently to carry out further work, such as haunching, within some 20 minutes depending on the surrounding ambient conditions.

Concrete Ground Sections

Formwork should be erected and made grout-tight. Normal concrete placing methods may be used including compaction by vibration and creating day-work joints as required.

Curing

No special curing is required at temperatures between 5°C and 35°C. For placing at temperatures outside this range contact the Technical Service Department.

Precautions

Health and Safety

Fastset Cement 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 Product Safety Data Sheet.

Fire

Fastset Cement is non-flammable

Yield

The yield obtained from each 25kg bag of Fastset Cement will depend on the particular mix design used. For the "1 to 3" mix given above the yield obtained from one 25kg bag of Fastset Cement is approximately 47 litres.

STORAGE AND SHELF LIFE

Fastset Cement 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

Fastset Cement is supplied in 25kg valvesack bags.
25kg valvesack bags Product Code DH58

For further information and sales please contact your local TecRoc Products Office as listed below.



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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.

Head Office
Holly Lane Industrial Estate
Atherstone
Warwickshire
CV9 2RN
Tel: 01827 711755
Fax: 01827 711330

Irish Distributor
Construction Chemical Supplies
Unit 219
JFK Road JFK Industrial Est
Dublin 12
Tel: 00 353 1 450 3896
Fax: 00 353 1 450 3298

Web site: www.tecroc.co.uk

E-mail: enquiries@tecroc.co.uk