Mortars

Comentitious

# TECHNICAL DATA

1.1.7

### Revision Date 03/2002

# **CSW GROUT**

# **Product Codes**

TG03 Packaging listed overleaf

# **Description**

CSW Grout is a specially formulated, portland cement powder mix. The mix design consists of a blend of selected cements, a high quality graded sand, and a set of synergistic admixtures. The mix design includes special shrinkage compensating components plus powerful plasticising agents which produce a free flowing grout at low water content. CSW Grout contains an integral waterproofer which imparts good water resistance to the placed grout. The placed grout gives structural support and good vibration resistance.

CSW Grout is chloride free and can be safely used in contact with all reinforcing steel and steel units. The specialised mix design enables placement at low water content giving good freeze-thaw stability, low water absorption plus resistance to oil, sea water and mild alkali attack.

Placement thickness may be in the nominal range of 10mm to 100mm. For thicker sections 6mm Aggregate should be added at a rate of up to one part by weight of Aggregate to one part by weight of CSW Grout

CSW Grout 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 grout which is used in structural support situations and is suitable for use where good vibration resistance is required.

# **Uses include:**

Grouting in tunnels, culverts, sewers and pipes and channels. Back grouting of brick, masonry and concrete to seal the flow of water and resist wet conditions. Grouting of marine structures, sea defences, harbours, jetties, docks and locks.

## **Specification Outline**

Grouting should be carried out using CSW Grout as manufactured by Tecroc Products Ltd.

The product must be stored, handled and placed strictly in accordance with the manufacturer's instructions.

# Typical Grout Properties @ 20°C

## Compressive strength

Water addition: 4.5 Litres per 25 kg bag CSW Grout.

1 Day	3 Days	7 Days	28 Days	90 Days
20N/mm <sup>2</sup>	32N/mm <sup>2</sup>	45N/mm <sup>2</sup>	56N/mm <sup>2</sup>	60N/mm <sup>2</sup>

Flexural Strength 10N/mm<sup>2</sup> @ 28 days.

 $2185 \text{ kg/m}^3$ . **Density Coefficient of Thermal Expansion** 

11 x 10<sup>-6</sup>/°C

**Compressive Modulus**  $30KN/mm^2$ 

ISAT Value  $0.03 \text{ml/m}^2/\text{s} (2 \text{ hour})$ **Setting Times** Initial: 260 minutes

Final: 290 minutes.

### Standards

CSW Grout has been tested in accordance with appropriate parts of the following standards:

B.S.4550, B.S.476, A.S.T.M.C953, B.S.1881, A.S.T.M.C1107

CSW Grout complies with:

The Corps of Engineers Specification for Non Shrink Grout CRD-C621.

# **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.

# **Instructions For Use**

# **Preparation**

Formwork should be erected and made grout-tight. The formwork must be designed with sufficient hydrostatic head to ensure grout flow into and across the grouting area.

Saturate the grouting area with water, leave for 1 hour and then blow out any surplus water.

Pour 4.5 litres of clean water into the mixing vessel for each complete bag of CSW Grout. Slowly add the CSW Grout to the water whilst continually mixing. Mechanical mixing is preferable using either a high torque slow speed drill with a

Grout Stirrer or a grout mixer set on a slow speed. (High speed or colloidal mixing will cause thixotropy leading to loss of flow).

Engineering

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# **CSW GROUT**

### **Instructions For Use**

## Placing under gravity

Grout should be placed within 20 minutes of mixing. Continuous placing is important, pouring from one side of the formwork until the grout appears at the opposite side of the grouting area. Do not disturb once grouting has been completed.

## Placing by pumping

The grout should be mixed and placed into the pumping plant in accordance with the pump manufacturers instructions. Injection points should be arranged at suitable centres. Pumping should be carried out at a rate designed to keep pumping pressures as low as practical.

CSW Grout may be placed at temperatures between 5°C and 35°C. For placing temperatures outside this range contact the Technical Service Department.

### Curing

Placed grout which is exposed should be cured in accordance with good concrete practice including water spray and the spray applied curing membrane Polycure.

### **Precautions**

### **Health and Safety**

CSW Grout 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 the Product Safety Data Sheet

### Fire

CSW Grout is non-flammable

### Yield

Each 25kg bag will yield approximately 13.25 litres of mixed material.

# **Storage And Shelf Life**

CSW Grout will have a storage life of 12 months in unopened bags when kept in dry conditions at a temperature between 5°C and 45°C. Storage at higher temperatures or high humidity may reduce shelf life.

# **Packaging And Ordering**

CSW Grout is supplied in 25kg valvesacks 25kg valvesacks Product Code TG03

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

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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