

# CEMROK/EASI-FLOW/ExCeL

(D.o.T: Highways Agency Spec:- 2601 Compliant)

## DESCRIPTION

**Cemrok/Easi-Flow/ExCeL** is a non shrink, very high strength cementitious grout comprising of low alkali high specific area Portland cements and other cementitious binders combined with high purity aggregates and a system of compatible admixtures to achieve high in service performance.

This grout has high flow characteristics to achieve penetration and levelling with no bleed and zero shrinkage when placed at 0.22 water solid ratio.

## USES

**Cemrok/Easi-Flow/ExCeL** has been specifically designed to provide a very high strength fluid grout for pouring into and under stanchion plates, machine base plates, parapet rails, for supporting bridge bearings and for filling ducts in post tensioned and pre-stressed structures.

## KEY PROPERTIES

- Cemrok/Easi-Flow/ExCeL has been independently tested by a UKAS Laboratory for Compliance to D.o.T Highways Agency Spec.2601 for "Bedding Mortars".
- Equivalent Sodium Oxide is less than 3.0kg/m<sup>3</sup>
- Very high ultimate strength.
- Shrinkage compensated.
- Can be used for grouting sections up to 100mm thick.
- Chloride Free
- High Fluidity – Can be pumped or poured
- Complies with U.S. Corps of Engineers Specification CRD-C 621.

## TYPICAL PERFORMANCE

All tests performed at 20°C

### Compressive Strength (N/mm<sup>2</sup>)

1 day	35.0
7 day	65.0
28 day	80.0
90 day	92

### Flexural Strength (N/mm<sup>2</sup>)

1 day	4.5
7 day	9.0
28 day	11.0

### Setting Times (Minutes)

Initial	160
Final	200

### Expansion Results (%)

1 day	0.01
7 day	0.05

Water/ Solid ratio 0.22

Pot Life Approximately 30 mins  
(Can vary with temperature)

### Flow Characteristics:

A typical flow-channel figure would be in the range of 500mm - 700mm.

## YIELD

The approximate yield of mixed grout per tonne of dry powder is 0.57m<sup>3</sup>. The approximate quantity of dry powder required to produce 1m<sup>3</sup> of set grout is 1.74 tonnes. 14.7 litres / 25kg of powder.

These figures do not allow for site wastage.

## Cementitious Systems

### MIXING INSTRUCTIONS

The grout should be mixed using water which complies with BS EN 1008 (as for concrete).

It should be mixed in a suitable container using either an electric (1Kw) or pneumatic power tool. Larger amounts can be mixed in a FORCED ACTION paddle mixer.

25kg of the grout powder should be added carefully to 5.5 litres of water, progressively mixing until a fluid grout consistency is achieved.

Small quantities can be mixed by hand, care being taken to accurately measure the water.

Once mixed, the material must not be re-worked.

### APPLICATION AND PLACING

**Cemrok/Easi-Flow/ExCeL** can either be poured or pumped into position. Due to the relatively short pot life pumped operations must be executed quickly particularly in warm weather conditions.

The grout should be placed immediately on completion of mixing for best results. Ensure all surfaces with which the grout will come into contact are clean and dust free. Ideally, concrete substrates should be thoroughly soaked for several hours prior to the grout being applied to reduce suction.

Permeable concrete should be treated with a suitable concrete primer such as Cemrok Concrete Primer A. Shuttters must be impermeable to the passage of water and both strong enough and sufficiently supported to contain the placed grout. When gravity placed, sufficient hydrostatic head must be given and grout volume maintained to enable the material to flow completely through the void to be filled from one side of shutter only. A minimum 50mm head is recommended. Immediately prior to placement all excess water should be removed. Any grout exposed to wind or drying conditions should be suitably protected, preferably by coating with a wax-free Curing Agent.

Any grout that is likely to be subject to low temperature immediately after placing or during its early strength development should be protected by covering with hessian or other insulative material. For concreting in cold weather reference should be made to BS 8110 Pt. 1 Section 6.

See Figure 1 for shutter detail for pouring **Cemrok/Easi-Flow/ExCeL**.

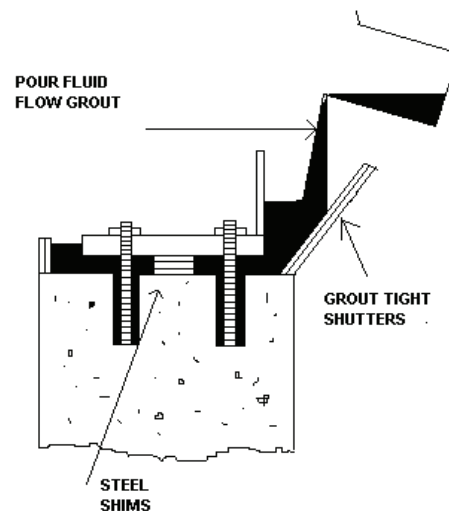
### PACKAGING AND STORAGE

**Cemrok/Easi-Flow/ExCeL** is available in nominal 25kg sacks, palletised and shrink wrapped. The grout may also be available in Intermediate Bulk Containers or in Bulk Powder Tankers.

Palletised material should be stored in cool dry areas clear of the ground sheeted or under cover and stacked not more than two pallets high. The product should be used on a first in – first out basis.

Shelf life is minimum 6 months subject to temperature and humidity.

FIGURE 1. GROUT SHUTTER DETAIL



### QUALITY CONTROL

Factory blended, tested and packaged in the UK for Adomast Ltd to quality control procedure in accordance with BS EN ISO 9001 Series.

### HEALTH AND SAFETY

For health and safety data, see sheet reference 40/A.