

# Flo-Grout CR

Free flow non-shrink grout for post tensioned cables



## Description

Flo-Grout CR is a pre-packed powder consisting of cement selected, admixtures and expansive material. Flo-Grout CR reduces the water demand at the desired flow, producing high strength grout with low permeability and excellent bond to steel. The low permeability grout produced will reduce the ingress of harmful agents and will protect the cables from corrosion.

## Applications

Flo-Grout CR is ideally designed as free flow grouting in post tensioned cables used in bridges, deck ducts, etc. It is also suitable for use in cable ducts and pre-stressed structural elements.

## Advantages

- ▲ A non-shrink grout which is compensated for shrinkage and settlement in the plastic stage.
- ▲ An extremely low permeability grout at low water to cement ratio.
- ▲ Reduces the ingress of harmful substances.
- ▲ High bond to steel.
- ▲ High initial and ultimate strength.
- ▲ Chloride and hydrogen free.
- ▲ Flo-Grout CR can be supplied with an Anti-corrosion impregnating additive.

## Standards

Flo-Grout CR complies with EN447.

## Method of Use

### Substrate Preparation

- ▲ Sufficient materials should be available on site to ensure continuous grouting.
- ▲ Cables should be carefully cleaned prior to grouting.
- ▲ Cable anchorage should be sealed prior to duct grouting.

## Mixing

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used.

### Technical Properties:

Colour:	Grey		
Test Type	Test Result	EN 447 requirements	Remarks
Fluidity:			
Flow time			
t 0 min	= 20 sec	≤ 25 sec	
t 30 min (after re-mixing)	≤ 25 sec	≤ 25 sec	Comply
Grout spread (71.6 cc cone)	= 165 mm	≥ 140 mm	Comply
Homogeneity:			
Sieve test 2 mm	No lumps	No lumps	Comply
Compressive strength:			
@ 1 day	≥ 25 MPa	N/A	--
@ 7 days	≥ 50 MPa	≥ 27 MPa	Comply
@ 28 days	≥ 60 MPa	≥ 27 MPa	Comply
Flexural strength:			
after 28 days	> 7.0 MPa	N/A	--
Mixed density: EN 445:2007	2.0 ± 0.1 g/cm <sup>3</sup>	N/A	--
Bleeding:	0%	0.3% max.	Comply
Volume change:	Up to +2%	-1% to +5%	Comply
Setting time:			
Initial set	6 - 8 hr	≥ 3 hr	Comply
Final set	18 hr	≤ 24 hr	Comply

**Notes:**  
*Compressive and flexural strength specimens should be kept under restraint for the first 24 hours.  
Compressive and flexural strength specimens @ 7 and 28 days should be kept under wet curing conditions.*

20 kg of Flo-Grout CR should be added slowly to 6 - 7 litre of water and mixed continuously for 5 minutes with speed between 500 - 600 rpm until a uniform consistency is obtained.

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## Placing and Finishing

In case of pumping, a suitable diaphragm pump must be used (screw and piston pump may also be suitable). The mixed grout should be pumped from one point only to eliminate air entrapment. The mixed grout should be pumped within 20 - 30 minutes of mixing.

## Curing

Only exposed areas should be properly cured with water.

## Cleaning

All tools should be cleaned immediately after application using fresh water. Hardened materials must be cleaned mechanically.

## Packaging

Flo-Grout CR is available in 20 kg bags.

## Yield

Approximately 13.25 litre of mixed grout is obtained when mixing 20 kg Flo-Grout CR, and 6.5 litre water.

## Storage

Flo-Grout CR has a shelf life of 12 months from date of manufacture if stored at temperatures between 5°C and 35°C in original unopened bags.

If these conditions are exceeded, DCP Technical Department should be contacted for advise.

## Cautions

## Health and Safety

Flo-Grout CR contains Portland cement and sand, Flo-Grout CR may cause irritation to skin or eyes.

In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advise if necessary.

For further information refer to the Material Safety Data Sheet.

## Fire

Flo-Grout CR is nonflammable.

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### Note:

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