

FLO-GROUT 3

High strength, high flow, non-shrink cementitious grout



TECHNICAL DATA SHEET PUBLISHED July 2021

PRODUCT FEATURES

Flo-Grout 3 is pre-mixed, pre-packed chloride free cementitious grout. It contains cement, selected additives, well graded, and non-reactive aggregates and is designed to give excellent flow properties, shrinkage compensation, frost resistance, and high compressive strength.

Flo-Grout 3 is ideally designed for use as a non-shrink cementitious grout in applications such as, machine beds, stanchion bases, struts, railings, and guardrail assemblies, filling of shutter tie rod openings, anchoring of tie bars, and bolts, as well as pile top re-profiling.

MATERIALS SUPPLIED

25 kg paper sacks.

STORAGE

Protect from frost and store under dry warehouse conditions at a temperature between 2°C and 40°C.

SHELF LIFE

12 months in unopened bags and stored under good condition.

THICKNESSES AND SIZE LIMITATIONS

Flo-Grout 3 can be applied in a single layer at thickness between 10 - 100 mm. For greater thickness, an 8 - 12 mm washed aggregate should be added at a ratio of 15 kg of washed aggregate to 25 kg of Flo-Grout 3.

YIELD

Approximately 13.5 - 14 liters/ 25 kg bag depending on consistency.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

- ▲ The Substrate should be sound, clean and free from contamination. Surface Laitance should be removed by acid etching.
- ▲ All surfaces should be soaked with water enough to reach saturated surfaces prior to grouting.
- ▲ A water tight formwork should be erected to avoid any grout loss.

TECHNICAL INFORMATION

BS EN1504-2:2005 BS EN1504-3:2006 BS EN1504-6:2006	
Color	Grey
Fresh wet density	≈ 2.1 g/cm ³
Application temperature	+4°C to +25°C
Service temperature	-20°C to +200°C
Compressive strength (N/mm ²) (BS EN 12190)	1 Day ≥ 20 7 Days ≥ 60 28 Days ≥ 70
Flexural strength (N/mm ²) (BS EN 1015-11)	1 Day ≥ 4.0 7 Days ≥ 6.0 28 Days ≥ 8.0
Adhesion bond (N/mm ²) (BS EN 1542)	≥ 1.5
Restrained shrinkage/ expansion (N/mm ²) (BS EN 12617-4)	≥ 1.5
Pull-out strength (BS EN 1881)	≥ 75 kN displacement ≤ 0.6 mm
Elastic modulus (N/mm ²) (BS EN 12412)	≥ 20 000
Permeability to CO ₂ diffusion-equivalent air layer thickness S _d (BS EN 1062-6)	> 50 m
Chloride ions content (BS EN 1015-17)	≤ 0.05%
Carbonation depth of control concrete, (MCO.45) (EN 13295)	mean value: 5.5 mm
d _k carbonation depth of Flo- Grout 3	mean value: 2.0 mm

MIXING

- ▲ To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used.
- ▲ For a flowable consistency, the addition of 3.5 - 3.6 liters of clean water should be added to clean container. The 25 kg powder is then added slowly to the water while mixing continuously with low speed mixer/drill (400 - 600 rpm). Mixing time should be continued for 3 minutes until uniform consistency is obtained.

PLACING AND FINISHING

UNDER BASE PLATE

Enough material should be available to achieve continuous fill and to complete the work. Pouring of the mixed grout should be started from one side only to avoid air entrapment. To obtain maximum flow distance, a side Shutter feed between 100 - 250 mm high should be erected and used to build the required head.

FORMWORK

As the mixed grout possesses high fluidity characteristics, all formwork and shutters should be water tight. This can be obtained by sealing underneath the formwork and at the joints by using an appropriate mastic.

The unrestrained areas should be kept to a minimum due to the expansive nature of Flo-Grout 3.

CURING

Since Flo-Grout 3 is a cementitious based material, it should be treated in a manner similar to concrete. Curing can be conducted by either using concrete curing compound such as Setseal 6 or by using wet hessian and polyethylene.

CLEANING

All tools should be cleaned immediately after finishing by clean water. Hardened materials can be cleaned mechanically.

PRECAUTIONS

At low temperatures (below 8°C), warm water is recommended to achieve the early strength. And the formwork is recommended to be kept longer time.

At high temperatures (35°C and above), cold water (less than 20°C) must be used for mixing.

HEALTH & SAFETY

Since it is powder containing Portland cement and sand, Flo-Grout 3 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 advice. Please refer to the relevant Health and Safety Data Sheet for detailed information.

Flo-Grout 3 is nonflammable.

GENERAL GUIDANCE

This data sheet is for general guidance purposes only and may contain information that is inappropriate for certain conditions of use. Accordingly, all recommendations and suggestions are made without guarantee. Further information is available from our Technical Services Department.

Don Construction Products Ltd Hawthorn House, Helions Bumpstead Road,
Haverhill, Suffolk CB9 7AA, UK T: +44 (0) 1440 766360

Note:

We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.

www.dcp-int.com

 expertise

 quality

 full range