Fosroc® Conbextra® Deep Pour

RCS HAZARD FREE

FOSROC constructive solutions

Flowable, precision, cementitious grout for large volume and deep pours (gaps 20mm to 500mm thickness)

Uses

Conbextra Deep Pour is a free flow precision grout for grouting gap applications ranging from 20mm up to a maximum of 500mm deep. Conbextra Deep Pour is formulated to minimise segregation and bleeding for deep grout pours.

Advantages

- Non-metallic, dual expansion system compensates for shrinkage in both the plastic (Class A) and hardened states (Class C)
- Non-shrink - according to ASTM C1107:2020
- Excellent initial flow and flow retention
- Suitable for pumping or pouring into position
- High ultimate strength and low permeability ensure durability of the hardened grout
- Hydrogen-free gaseous expansion
- Chloride free
- RCS (Respirable Crystalline Silica) Hazard Free*

Description

Conbextra Deep Pour is a dual shrinkage compensated (non-shrink) cementitious grout, supplied as a ready to use dry powder. The addition of a controlled amount of clean water produces a free-flowing precision grout for gap thicknesses up to 500mm. In addition the low water requirement ensures high early strength and long term durability.

Conbextra Deep Pour is a blend of Portland cements, graded fillers and chemical additives which impart controlled expansion in both the plastic (Class A) and hardened (Class C) states. The filler grading minimises segregation and bleeding over a wide range of application consistencies.

*Conbextra Deep Pour is classified not hazardous for RCS in accordance with Australian Inventory of Industrial Chemicals; contains <0.1% RCS.

Maximum filler aggregate size contained in Conbextra Deep Pour is 5mm.

Standards compliance

AS 1478.2-2005 Appendix E Early Volume Change

AS 1478.2-2005 Table 4.1.2.2 Consistency

Rapid Mortar Bar Test (RTA T363)

SAA MP20.3-1977 Class A & Class C

Properties

Test Method	Standard	Result				
Compressive Strength	AS 1478.2:2005	**Consistency**	**Water Addition**	**1 Day**	**7 Days**	**28 Days**
		Plastic	2.4 - 2.6	10	45	65
		Flowable	2.6 - 2.8	5	42	60
Flexural Strength (Modulus of Rupture)	AS 1012.11 - 2000	7 Days 28 Days	5.0 MPa 7.5 MPa			
Indirect Tensile Strength	AS 1012.10.2000	7 Days 28 Days	2.5 MPa 4.0 MPa			
Setting Time	AS 1012.18:1996	6.5 hours - initial set 9.0 hours - final set				
Fresh Wet Density		2200 kg/m³ - depending on consistency used				
Alkali reactive particles	Rapid Mortar Bar Test (RTA T363)	Non-reactive				
Flow Characteristics	AS 1478.2:2005	500mm (Flow Trough)				
Minimum Thickness **Maximum Thickness**		20mm 500mm				

Clarification of property values: The typical properties given above are derived from laboratory testing. Compressive strengths stated above were measured using cube samples. Test results obtained will vary if carried out to an alternative standard or sample dimensions are used.

Note: Compressive strengths stated were measured at bottom end water, eg., the 28 day strength of 60 MPa for flowable consistency was obtained at a water ratio of 2.6 litres of water per 20kg bag of Conbextra Deep Pour.

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Test Results to ASTM Specification C1107: 2020

Test Method	Standard	Result	
Flow Consistency	ASTM C939:2016a	>145%	
Setting Time	ASTM C953:2017	Initial: Final:	390 mins 440 mins
Change in Height at Early Age at Final Setting Time	ASTM C827:2016	+0.29%	
Height Change of Hardened Grout Moist Cure	ASTM C1090:2015	1 day 3 days 14 days 28 days 28 days + 28 days in air	+0.3% +0.3% +0.3% +0.3% +0.3%
Compressive Strength	ASTM C109:2020b	1 day 3 days 7 days 28 days	13.8 N/mm² 39.4 N/mm² 51.2 N/mm² 63.8 N/mm²

Note: All tests were carried out at 25°C ± 2°C until the age of the test. All above test results are independent third party results. Copies of these test results are available on request. The tests were carried out at a water addition rate of 2.6L per 20kg.

Application Instructions

Preparation

Foundation surface

The substrate surface must be free from oil, grease or any loosely adherent material. If the concrete surface is defective or has laitance, it must be cut back to a sound base. For maximum bond, surfaces should be abraded or roughened, preferably by mechanical means such as needle gun, grit blasting, grinding. Bolt holes or fixing pockets must be blown clean of any dirt or debris. These may need to be grouted beforehand.

Base plate

It is essential that this is clean and free from oil, grease or scale. Air pressure relief holes should be provided to allow venting of any isolated high spots.

Levelling shims

If these are to be removed after the grout has hardened, they should be treated with a thin layer of grease.

Formwork

The minimum gap for pouring Conbextra Deep Pour is 25mm. The formwork should be constructed to be leakproof as Conbextra Deep Pour is a free flowing grout. This can be achieved by using foam rubber strip or construction silicone sealant beneath the constructed formwork and between joints.

The unrestrained surface area of the grout must be kept to a minimum. Generally the gap width between the perimeter formwork and the plate edge should not exceed 150mm on the pouring side and 50mm on the opposite side. There should be no gap at the flank sides.

Pre-soaking

Pre-soaking the formed grouting area with clean water helps to ensure good adhesion of the grout at the interface of the concrete foundation and improves the flow of the grout during the installation. The area should be filled with clean water for a **minimum 2 hours** before the grouting takes place.

Immediately before grouting takes place, any free water should be removed by draining or vacuum.

Particular care should be taken to blow out any bolt holes and pockets.

Mixing

A forced-action mixer is essential. Mix for 3 to 5 minutes at a slow speed (400/500rpm) in a suitably sized drum using appropriate equipment such as a 120/140mm helical mixing paddle fitted to a heavy-duty 1600W mixer.

The selected water content should be accurately measured into the mixing bucket. While mixing, slowly add the total contents of the Conbextra Deep Pour bag, mix continuously for 3 to 5 minutes, ensuring a smooth, even consistency is obtained. Aways add the powder to the water.

Required Consistency	Litres of water added per 20kg bag	Yield - litres of mixed material
Plastic	2.4 - 2.6	10.0
Flowable	2.6 - 2.8	10.0

Mixing larger volumes

Larger quantities will require a high shear vane mixer. Do not use a colloidal impeller mixer.

It is essential that machine mixing capacity and labour availability is adequate to enable the grouting operation to be carried out continuously. This may require the use of a

holding tank with provision for gentle agitation to maintain fluidity.

Placing

Place the grout within 15 minutes of mixing to gain the full benefit of the expansion process.

Any bolt pockets must be grouted prior to grouting between the substrate and the base plate.

Continuous grout flow is essential. Sufficient grout must be available prior to starting and the time taken to pour a batch must be regulated to the time taken to prepare the next one.

The mixed grout should be poured only from one side of the void to eliminate the entrapment of air or surplus pre-soaking water. This is best achieved by pouring the grout across the shortest distance of travel. The grout head must be maintained at all times so that a continuous grout front is achieved.

For larger pours the grout may be hand placed or pumped into a removable hopper (trough).

Flow properties of mixed grout

The flow distances given below in (mm) are intended as a guide. Actual flow distances will vary depending on site conditions:

Gap Depth (mm)	Flowable 100mm head (mm)	Flowable 250mm head (mm)
30	1500	3000
40	2200	3000+
50	3000	3000+

Pumping

Where large volumes have to be placed Conbextra Deep Pour may be pumped. A heavy duty diaphragm pump is recommended for this purpose. Screw feed and piston pumps may also be suitable. Maximum aggregate size for pumping is 5.0mm. Ensure the selected pump is capable of pumping this size of aggregate.

Curing

On completion of the grouting operation, exposed areas should be thoroughly cured. This should be done by the use of a **Concure** curing membrane; continuous application of water and/or wet hessian.

Cleaning

Conbextra Deep Pour should be removed from tools and equipment with clean water immediately after use. Cured material can be removed mechanically.

Limitations

Low temperature working

When the air or contact surface temperatures are 5°C or below on a falling thermometer, warm water (30-40°C) is recommended to accelerate strength development.

For ambient temperatures below 10°C the grout consistency should be flowable and the formwork should be maintained in place for at least 36 hours.

Normal precautions for winter working with cementitious materials should then be adopted.

High temperature working

At ambient temperatures above 35°C the mixed grout should be stored in the shade. Cool water (below 20°C) should be used for mixing the grout.

Note: long narrow grouting sections should be avoided where possible and pours arranged to achieve a length : minimum thickness ratio of not more than 20 : 1.

Supply

Conbextra Deep Pour 20kg:	FC501070-20KG
Conbextra Deep Pour 1000kg bulk bag (MTO*):	FC501070-1000KG
*Made to Order:	Min order quantities apply - check with Customer Service

Yield

10.0 litres per 20kg bag mixed to flowable consistency

Allowance should be made for wastage when estimating quantities required.

Storage

Conbextra Deep Pour has a shelf life of 18 months from date of manufacture if kept in the original, unopened bags. Refer to the manufacture date indicated on the packaging. Do not use if there are lumps in the product, or a loss of workability (requiring more water to be added) is experienced.

Important notice

A Safety Data Sheet (SDS) is available from the Fosroc website. Read the SDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

Product disclaimer

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.

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