Product Pack for

Fosroc® Conbextra GP High-flow, Non-shrink, Cementitious Grout

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constructive solutions

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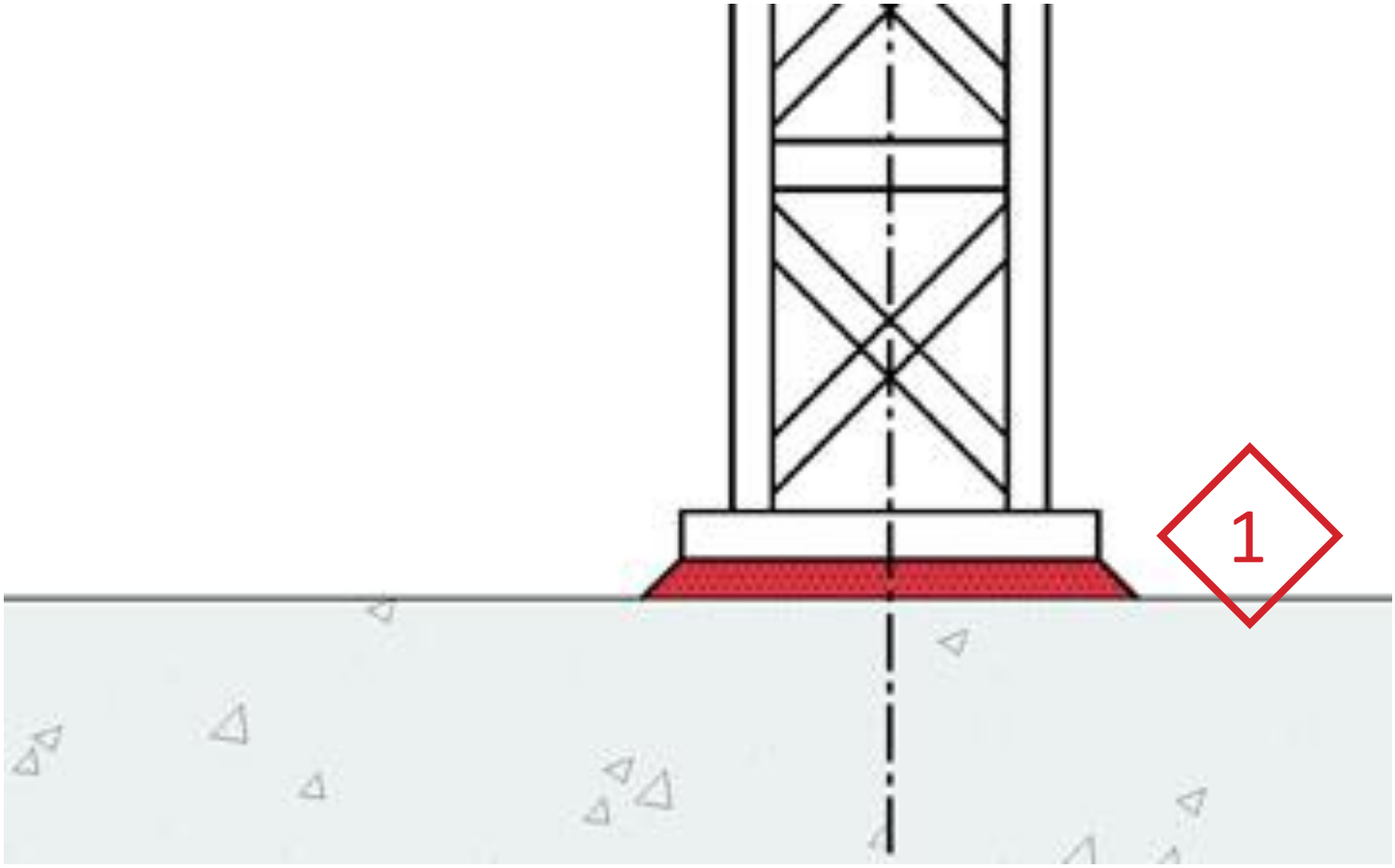
PRODUCT INTRODUCTION

Conbextra GP

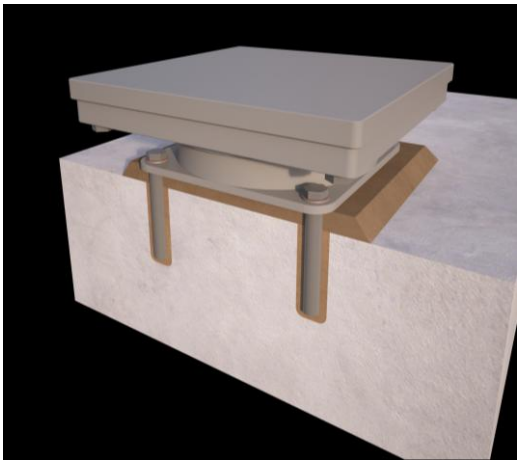
Product Information

Product Name.	**Conbextra GP**.
Description.	High-flow, non-shrink, cementitious grout conforming to the requirements of BS EN 1504-3 Class R4 and BS EN 1504-6: Anchoring of reinforcing steel bar.
Photo.	
Colour.	Grey Powder
Packaging:.	25 kg/bag

System & Application Area



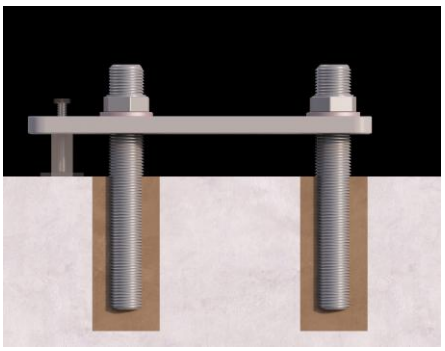
1 Conbextra GP



Baseplate grout

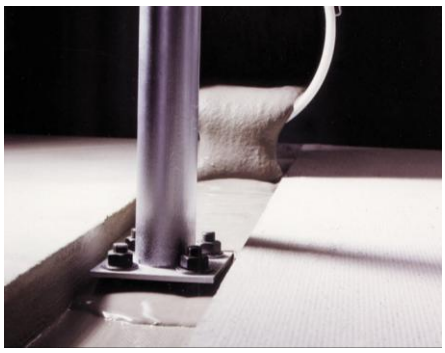
Product Advantages

Conbextra GP is a high-flow, non-shrink, cementitious grout conforming to the requirements of BS EN 1504-3 Class R4 and BS EN 1504-6: Anchoring of reinforcing steel bar.



Non-shrink

High strength



Chloride free

Can be used at flowable or trowellable consistency

PRODUCT DATA SHEETS

Fosroc® Conbextra GP

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High-flow, non-shrink, cementitious grout conforming to the requirements of BS EN 1504-3 Class R4 and BS EN 1504-6: Anchoring of reinforcing steel bar.

Uses

Conbextra GP is used for free flow, non-shrink, cementitious grouting of gap thicknesses 10 to 75 mm. Recommended applications include:

- Stanchion baseplates
- Joints between pre-cast concrete panels
- Grouting applications where pouring access is restricted
- Anchoring of reinforcing steel bars
- Installation of tie bars
- Trowelling consistency can be used for bedding and in lieu of dry packs

Advantages

- Non-shrink
- High strength
- Chloride free
- Can be used at flowable or trowellable consistency
- Conbextra GP complies with LU Standard 1-085 'Fire Safety Performance of Materials'.

Description

Conbextra GP is supplied as a ready to use dry powder. The addition of a controlled amount of clean water produces a free-flowing grout for gap thicknesses up to 75mm. The low water requirement ensures high early strength and long-term durability.

Conbextra GP is a blend of Portland cements, graded fillers and chemical additives. The filler grading produces a highly flowable grout which will not segregate or bleed.

Specification clause

The grout shall be Conbextra GP a pre bagged single component cementitious material which conforms with the requirements of BS EN 1504-3 class R4 and BS EN 1504-6.

It shall be mixed with clean water to the required consistency and not exhibit bleed or segregation

A volumetric expansion of up to 1% shall occur while the grout is in a plastic state by means of a gaseous system.

The compressive strength of the grout shall exceed 40 MPa at 7 days and 60 MPa at 28 days.

The storage, handling and placement of the grout must be in strict accordance with the manufacturer's instructions.

Standards compliance

Conbextra GP complies with classification R4 according to BS EN 1504-3.

Conbextra GP complies with the requirements of BS EN 1504-6 : Anchoring of reinforced steel bar.

CE

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0370–CPR–0845

DOP: UK9-09

Fosroc International Limited
Drayton Manor Business Park, Coleshill Road, Tamworth, B78 3XN, UK

Conbextra GP

BS EN1504-3: Structural and non-structural repair methods 3 and 4
BS EN 1504-6: Anchoring of reinforcing steel bar

Compressive strength	Class R4 (≥ 45 MPa)
Adhesion strength by pull-off test	≥ 2.0 MPa
Chloride ion content	≤ 0.05%
Thermal compatibility: freeze thaw cycling with immersion	≥ 2.0 MPa
Carbonation resistance	Passes
Elastic modulus	22 GPa
Testing of anchoring products by the pull-out method	≤ 0.6 mm at 75 kN load
Fire classification	Class A1
Dangerous substances	Complies with 5.3 (EN1504-6) 5.3 (EN1504-3)

CERTIFIED CARBON NEUTRAL® product
CarbonNeutral.com

Fosroc® Conbextra GP

Properties

The following results were obtained at a water : powder (w:p) ratio of 0.18 and a temperature of 20°C unless otherwise stated.

Test method	Standard	EN 1504 requirement	Result
Compressive Strength	EN 12190:1999	Class R4 ≥45 MPa	@ 1 Day 15 MPa @ 7 Day 45 MPa @ 28 Days 60MPa @ 28 Days 65MPa (w:p 0.16) @ 28 Days 70MPa (w:p 0.14)
Bond strength by pull off:	EN 1542:1999	Class R4 ≥2.0 MPa	2.6 MPa
Chloride ion content:	EN 1015-17:2000	Class R4 < 0.05 %	0.02%
Freeze thaw cycling:	EN 13687-1:2002	Class R4 > 2.0 MPa	2.3 MPa
Resistance to carbonation d	EN 13295:2005	Class R4 ≤ ref concrete	Conforms
Elastic Modulus in Compression	EN 13412	Class R4 ≥ 20 GPa	22.1 GPa @ 28 days
Testing of anchoring products by pull out method	EN 1881	@ 75 KN load < 0.6 mm	0.49 mm Dry Test 0.44 mm Wet Test
Fire rating	EN 1504-3 cl.5.5	-	Class A1 Non-Combustible
Flexural strength	BS 6319 Pt 3:1990	-	10.0 MPa @ 28 days
Setting time	BS 4551 Pt14:1980	-	Initial set: 6 hours
Fresh wet density	-	-	Nominally 2080 kg/m^{-3}
Alkali reactive particles	Method TI-B 52	-	≤ 1.0 vol %
Time for expansion	-	-	Start :15 minutes Finish : 2 hours
Minimum thickness **Maximum thickness**	--	--	10mm 75mm

Clarification of property values: The typical properties given above are derived from laboratory testing. Results derived from field applied samples may vary.

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 / scabbled to a sound base. Bolt holes or fixing pockets must be blown clean of any dirt or debris.

Pre-soaking

For a minimum of 2 hours prior to grouting, the area of cleaned foundation should be flooded with fresh water. Immediately before grouting takes place, any free water should be removed. Particular care should be taken to blow out all bolt holes and pockets.

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Pre-soaking (cont.)

In certain situations, such as likelihood of damage to surrounding areas, water flooding / prolonged soaking of the concrete substrate may not be possible.

In such cases, immediately prior to the grout application, the cleaned concrete should be water wetted, for example by spraying, until the surface becomes saturated / no longer shows signs of rapid drying; particular care to be taken on hot days and or in direct sunlight. Before grouting takes place, any free water should be removed, taking care to blow out all bolt holes and pockets.

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 formwork should be constructed to be leakproof as Conbextra GP is a free-flowing grout. This can be achieved by using foam rubber strip or Nitoseal MS60* beneath the constructed formwork and between joints.

In some cases it is practical to use a sacrificial semi-dry sand and cement formwork. The formwork should include outlets for the pre-soaking water.

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 150 mm on the pouring side and 50 mm on the opposite side. There should be no gap at the flank sides.

Mixing

Water addition: Flowable: 4.0 - 4.5 litres per 25Kg bag
Trowellable: 3.0 - 3.6 litres per 25Kg bag

For mixing quantities up to 50 kg a high power, 280 to 640 rpm, 110 volt drill, fitted with a Conbextra Mixing Paddle (MR3) is suitable.

For best results a mechanically powered grout mixer should be used. 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.

Prior to the first mix the vessel should be wetted and drained. The selected water content should be accurately measured into the mixer. Slowly add the total contents of the Conbextra GP bag, mix continuously for 5 minutes, ensuring a smooth, even consistency is obtained.

Placing

At trowellable consistency, place the grout manually into the prepared area or void before tamping / bedding. Trowel off excess to finish.

At flowable consistency, place the grout within 20 minutes of mixing to gain the full benefit of the expansion process.

Conbextra GP can be placed in thicknesses up to 75 mm in a single pour.

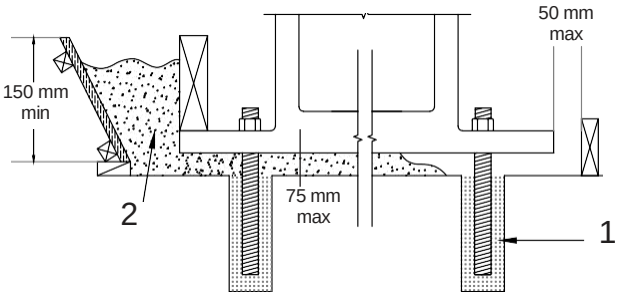
For thicker sections use Conbextra TS grout.

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

Continuous grout flow is essential.

Example of a typical hopper system:

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



1 Conbextra GP or Lokfix* (first stage))

2 Conbextra GP poured or pumped into removable hopper (second stage)

* Also available from Fosroc.*

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.

Fosroc® Conbextra GP

Where large volumes have to be placed Conbextra GP may be pumped. Screw feed and piston pumps are suitable for this purpose.

When the Conbextra GP has reached trowellable consistency, the unrestrained portion should be cut back to the baseplate/ bearing plate.

Curing

On completion of the grouting operation, exposed areas should be thoroughly cured with Concure WB curing membrane, continuous application of water and/or wet hessian.

Anchoring applications

Holes should be drilled with a rotary percussive air flush drill and deformed bars should be used. Diamond cored holes should be roughened or under-reamed. The holes should be prewetted for a minimum of 2 hours prior to grouting. Remove water before grouting.

The mixed grout should be poured into the hole and the bar pushed through the grout.

Cleaning

Conbextra GP should be removed from tools and equipment with clean water immediately after use. Cured material can be removed mechanically, or with Fosroc Acid Etch.

Estimating

Supply

Conbextra GP is supplied in 25 kg bags, 1000 kg bags or bulk tanker.

Yield

Allowance should be made for wastage when estimating quantities required. The approximate yield per 25 kg bag for different consistencies is:

Consistency	Trowellable	Flowable
Yield:	12 litres	13.25 litres

Limitations

Low temperature working

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

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, specifically protecting the grout from freezing in the first 48 hours after placing.

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.

Storage

Store unopened bags in cool dry internal conditions. Conbextra GP has a shelf life of 12 months if kept in a dry store in sealed bags. If stored in high temperature and high humidity locations the shelf life may be reduced to less than 6 months. Conbextra GP is not supplied in waterproof packaging; individually or palletised.

Precautions

Health and safety

For further information refer to appropriate Product Safety Data Sheet available at www.fosroc.com

Fire

Conbextra GP is non-flammable.

Environmental Data (EPD)

GWP Total, A1 – A3: 0.407 kgCO2e per 1kg product.

GWP Total, A1 – D: 0.611 kgCO2e per 1kg product.

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SDS

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Supersedes Date 10/27/2020 **Revision date** 04/11/2025 **Revision Number** 11

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name CONBEXTRA GP

Safety data sheet number 10871***

Unique Formula Identifier (UFI) H800-U0RP-S00E-14QK

Pure substance/mixture Mixture

Contains ORDINARY PORTLAND CEMENT

2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use Cementitious Grout

Uses advised against Consumer use

3. Details of the supplier of the safety data sheet

Supplier

Fosroc International Limited
Drayton Manor Business Park
Coleshill Road
Tamworth
Staffordshire
B78 3XN
England
Tel. +44 (0) 1827 262222
Fax. +44 (0) 1827 262444

For further information, please contact

E-mail address enquiryuk@fosroc.com

1.4. Emergency telephone number

Emergency Telephone +44 (0) 1827 265 279 (Monday to Sunday, 24 hours a day)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GB CLP (SI 2020/1567 as amended)

Skin corrosion	Category 1*** - (H314)***
Serious eye damage	Category 1*** - (H318)***
Skin sensitization	Category 1*** - (H317)***
Specific target organ toxicity (single exposure)	Category 3*** - (H335)***
Category 3*** Target organ effects: Respiratory irritation.***	

2.2. Label elements

Contains ORDINARY PORTLAND CEMENT

Signal word
Danger***

Hazard statements
H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.
H335 - May cause respiratory irritation.***

Precautionary statements
P260 - Do not breathe dust, fume, gas, mist, vapors and spray.
P280 - Wear protective gloves/protective clothing and eye/face protection.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.***

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.***

2.3. Other hazards

Other hazards This product does not contain any substances classified as PBT or vPvB according to applicable EU criteria.

SECTION 3: Composition/information on ingredients

1 . Substances

Not applicable***

2 . Mixtures***

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	Notes
SILICA	50 -	238-878-4	-	-	-	-	-	-

SAND(300-500 micron)*** 14808-60-7	<100%							
ORDINARY PORTLAND CEMENT*** 65997-15-1	25 - <50%	266-043-4	-	Skin Irrit. 2 (H315) Skin Sens. 1B (H317) Eye Dam. 1 (H318) STOT SE 3 (H335)***	-	-	-	-
SILICA FLOUR*** 14808-60-7	0.025 - <0.25%	238-878-4	-	-	-	-	-	-
IRON (II) SULFATE (1:1) HEPTAHYDRATE*** 7782-63-0	0.025 - <0.25%	(026-003-01-4) ***	-	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)***	Skin Irrit. 2 :: C>=25%	-	-	-
ALUMINIUM POWDER (STABILIZED)*** 7429-90-5	<0.025%	231-072-3 (013-002-00-1) ***	-	Flam. Sol. 1 (H228) Water-react. 2 (H261)***	-	-	-	T***

Full text of H- and EUH-phrases: see section 16

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
ALUMINIUM POWDER (STABILIZED)*** 7429-90-5	No data available	No data available	0.888***	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration >= 0.1% (UK REACH Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

No personal protective equipment is needed for first aid responders. First aid workers should avoid contact with wet cement or wet cement containing preparations. Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.***

Inhalation

Dust in throat and nasal passages should clear spontaneously. Get medical attention if irritation persists or later develops, or if discomfort, coughing or other symptoms persist. Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical attention.***

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.***

Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention. May cause an allergic skin reaction.***

Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.***
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Wear personal protective clothing (see section 8).***

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases. Ingestion of large doses may result in irritation to the gastrointestinal tract. May have an irritating effect on moist skin after prolonged contact, or may cause dermatitis after repeated contact. Prolonged skin contact with wet preparation may cause serious burns without pain being felt, including through clothing. Eye contact may cause serious and potentially irreversible injuries. Burning sensation. Itching. Rashes. Hives.***
Effects of Exposure	No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. May cause sensitization in susceptible persons. Treat symptomatically.***

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Product does not support combustion.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. Product is or contains a sensitizer. May cause sensitization by skin contact.***

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Use protective equipment appropriate for surrounding fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.***

Other information	Refer to protective measures listed in Sections 7 and 8.***
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Do not discharge into drains, watercourses or onto the ground. Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.***

6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Dry material:. Collect powder using special dust vacuum cleaner with particle filter. Alternatively, damp powder with fine spray (to avoid dust formation) and remove slurry. Place into containers and dispose as described in section 13. Wet material:. Clean up wet material and place in a container. Allow to dry and solidify before disposal as described in section 13.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.***
General hygiene considerations	This product contains silica sands. The grain size distribution of silica sand present means that it is not classified as hazardous. However, any respirable crystalline dust generated by secondary processing may cause health effects. Prolonged and /or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable crystalline silica dust should be monitored and controlled. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.***

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Unsuitable containers: aluminium. The product contains less than 2 mg chromate/kg dry cement, and this limit will not be exceeded for 6 months from the packing date stated on the packaging. Seal opened containers and use up as soon as possible. Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.***

7.3. Specific end use(s)

Specific use(s)
See section 1 for more information.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits ***

Chemical name	United Kingdom
SILICA SAND(300-500 micron)*** 14808-60-7	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³
ORDINARY PORTLAND CEMENT*** 65997-15-1	TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³
SILICA FLOUR*** 14808-60-7	TWA: 0.1 mg/m³ STEL: 0.3 mg/m³
IRON (II) SULFATE (1:1) HEPTAHYDRATE*** 7782-63-0	TWA: 1 mg/m³ STEL: 2 mg/m³
ALUMINIUM POWDER (STABILIZED)*** 7429-90-5	TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³

Biological occupational exposure limits This product, as supplied, contains materials that do not have reportable biological exposure limits or are not subject to the reporting requirements of the local jurisdiction.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
CALCIUM CARBONATE 471-34-1	-	-	6.36 mg/m³ [5] [6]***

[5] Local health effects.
[6] Long term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
CALCIUM CARBONATE 471-34-1	6.1 mg/kg bw/day [4] [6] 6.1 mg/kg bw/day [4] [7]***	-	1.06 mg/m³ [5] [6]***

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
CALCIUM CARBONATE 471-34-1	-	-	100 mg/L***	-	-
ALUMINIUM POWDER (STABILIZED)*** 7429-90-5	-	-	20 mg/L***	-	-

8.2. Exposure controls

Engineering controls Atmospheric levels of dust must be maintained within the Occupational Exposure Limit. Where mechanical methods are inadequate or impractical, appropriate personal protective equipment must be used.

Personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.***

Hand protection Use impervious, abrasion and alkali resistant gloves. Wear suitable gloves. Impervious gloves.***

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.***

Respiratory protection Appropriate respiratory protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Recommended filter type: particulate filter, type P2.

General advice This product may present a chromate (VI) allergy risk. It contains a chromate reducing agent, but users should wear appropriate personal protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Dusty powder
Physical state	Solid
Color	gray
Odor	Odorless
Odor threshold	Not applicable

Property	Values	Remarks • Method
pH	> 12	pH (concentrated solution): >12
pH (as aqueous solution)	No data available	None known
Melting point / freezing point	> 1250 °C***	None known
Initial boiling point and boiling range	No data available	Not determined
Flash point	No data available	Not applicable
Evaporation rate	No data available.	No data available.
Flammability	No data available	None known
Flammability Limit in Air		Not applicable
Upper flammability or explosive limits	No data available	

Lower flammability or explosive limits	No data available	
Vapor pressure	No data available.	Not applicable
Relative vapor density	No data available	Not applicable
Relative density	No data available.	None known
Bulk density	1.3 kg/l	
Liquid Density	No data available.	
Solubility(ies)	No data available.	None known
Water solubility	Slightly soluble	None known
Partition coefficient	No data available.	None known
Autoignition temperature	No data available	Not applicable
Decomposition temperature		None known
SADT (°C)	No data available	None known
Kinematic viscosity	No data available.	Not applicable
Dynamic viscosity	No data available.	Not applicable
Particle characteristics		
Particle Size	No data available.	
Particle Size Distribution	No data available.	
Explosive properties	Not considered to be explosive.	
Oxidizing properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.	

9.2. Other information

Information with regard to physical hazard classes
None known Not applicable

Other safety characteristics
None known

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity When mixed with water, hardens to form a stable mass that is not reactive in normal conditions.

10.2. Chemical stability

Stability Stable under normal temperature conditions. When stored under humid conditions, the chromate neutralization will decrease.
This product contains a chromate reducing agent to reduce the risk of allergic dermatitis causes by chromium (VI).
This product has a shelf life. If not stored in accordance with packaging instructions (sealed and dry), there is an increased risk of the presence of hexavalent chromate leading to an increased risk of an allergic reaction.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Exposure to air or moisture over prolonged periods.***

10.5. Incompatible materials

Incompatible materials Chemically active metals. Acids. Bases. Oxidizing agent.***

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information ***

Inhalation Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause irritation of respiratory tract.***

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.***

Skin contact Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns. May cause sensitization by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.***

Ingestion Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.***

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms See Section 4 for more information. Redness. Burning. May cause blindness. Coughing and/ or wheezing. Itching. Rashes. Hives.***

Acute toxicity Based on available data, the classification criteria are not met.

Numerical measures of toxicity ***

The following ATE values have been calculated for the mixture ***

ATEmix (oral)	99,999.00*** mg/kg***
ATEmix (dermal)	99,999.00*** mg/kg***
ATEmix (inhalation-gas)	99,999.00*** ppm***
ATEmix (inhalation-vapor)	99,999.00*** mg/l***
ATEmix (inhalation-dust/mist)	99,999.000*** mg/l***

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
ALUMINIUM POWDER (STABILIZED)***	-	-	> 0.888 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes severe skin burns and eye

damage.***

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye damage. Causes burns.***

Respiratory or skin sensitization Some individuals may exhibit eczema upon exposure to wet cement caused either by the high pH which induces irritant contact dermatitis, or by an immunological reaction to soluble Cr (VI) which elicits allergic contact dermatitis. The cement contains a soluble Cr (VI) reducing agent and as long as the mentioned period of effectiveness is not exceeded, a sensitising effect is not expected. May cause an allergic skin reaction.***

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT - single exposure May cause respiratory irritation.***

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

Other adverse effects None known.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity ***

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.***

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
IRON (II) SULFATE (1:1) HEPTAHYDRATE***	-	LC50: =925mg/L (96h, Poecilia reticulata) LC50: =0.56mg/L (96h, Cyprinus carpio)	-	EC50: =152mg/L (48h, Daphnia magna) EC50: 6.15 - 9.26mg/L (48h, Daphnia magna)

12.2. Persistence and degradability

Persistence and degradability Not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation The material does not bioaccumulate.

12.4. Mobility in soil

Mobility in soil The product hardens to a solid, immobile substance.
The product is not volatile but may be spread by dust-raising handling.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

Chemical name	PBT and vPvB assessment
ALUMINIUM POWDER (STABILIZED)***	Not PBT/vPvB***

12.6. Other adverse effects
No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Cement that has exceeded its shelf life: when demonstrated that it contains more than 0.0002% Cr (VI), the product shall not be used other than in controlled closed and totally automated processes. It may be recycled and/or treated again with a reducing agent.***

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

Note: The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).***

IATA

1. UN number or ID number	Not regulated
2. UN proper shipping name	Not regulated
3. Transport hazard class(es)	Not regulated
4. Packing group	Not regulated
5. Environmental hazards	Not applicable
6. Special precautions for user Special Provisions	None

IMDG

1. UN number or ID number	Not regulated
2. UN proper shipping name	Not regulated
3. Transport hazard class(es)	Not regulated
4. Packing group	Not regulated
5. Environmental hazards	Not applicable
6. Special precautions for user Special Provisions	None
7. Maritime transport in bulk according to IMO instruments	None known

RID

1. UN number or ID number	Not regulated
2. UN proper shipping name	Not regulated
3. Transport hazard class(es)	Not regulated

4.	**Packing group**	Not regulated
5.	**Environmental hazards**	Not applicable
6.	**Special precautions for user Special Provisions**	None

ADR

1.	**UN number or ID number**	Not regulated
2.	**UN proper shipping name**	Not regulated
3.	**Transport hazard class(es)**	Not regulated
4.	**Packing group**	Not regulated
5.	**Environmental hazards**	Not applicable
6.	**Special precautions for user Special Provisions**	None

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations ***

Authorizations and/or restrictions on use:
This product contains one or more substances subject to restriction (UK REACH - Annex XVII).***

Chemical name	Restricted substance per UK REACH Annex XVII	Substance subject to authorization per UK REACH Annex XIV
ORDINARY PORTLAND CEMENT*** 65997-15-1	Use restricted. See item 47.	-

Persistent Organic Pollutants
Not applicable

Export Notification requirements
Not applicable

Named dangerous substances per COMAH (SI 2015/483 as amended)
Not applicable

The Ozone-Depleting Substances Regulations 2015
Not applicable

The Biocidal Products Regulations 2001 (as amended)
Not applicable

Chemical name	The Biocidal Products Regulations 2001 (as amended)
IRON (II) SULFATE (1:1) HEPTAHYDRATE*** 7782-63-0	Simplified procedure - Category C

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)
Not applicable

Poisons and Explosive Precursors
Not applicable.

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDSL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status

PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status
TCSI	Contact supplier for inventory compliance status

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing Chemicals Inventory
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals
TCSI - Taiwan Chemical Substance Inventory

15.2. Chemical safety assessment

Chemical Safety Report	No chemical safety assessment has been carried out.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of any hazard and/or precautionary statements referred to under Sections 2-15
H228 - Flammable solid
H261 - In contact with water releases flammable gas
H302 - Harmful if swallowed
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation***
P260 - Do not breathe dust, fume, gas, mist, vapors and spray
P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear protective gloves, protective clothing, eye protection and face protection
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor
P321 - Specific treatment (see supplemental first aid instructions on this label)
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable
P261 - Avoid breathing dust, fume, gas, mist, vapors and spray
P272 - Contaminated work clothing should not be allowed out of the workplace
P280 - Wear protective gloves
P302 + P352 - IF ON SKIN: Wash with plenty of water and soap
P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
P362 + P364 - Take off contaminated clothing and wash it before reuse
P271 - Use only outdoors or in a well-ventilated area
P312 - Call a POISON CENTER or doctor if you feel unwell
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed***

Legend

ACGIH	American Conference of Governmental Industrial Hygienists

ADN	Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Europe)
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road (Europe)
AIIC	Australian Inventory of Industrial Chemicals
ATE	Acute Toxicity Estimate
ASTM	American Society for the Testing of Materials
bar	Biological Reference Values for Chemical Compounds in the Work Area
BAT	Biological tolerance values for occupational exposure
BEL	Biological exposure limits
bw	Body weight
Ceiling	Maximum limit value
CLP	Classification, Labelling and Packaging Regulation; Regulation (EC) No 1272/2008
CMR	Carcinogen, Mutagen or Reproductive Toxicant
DOT	Department of Transportation (United States)
DSL	Domestic Substances List (Canada)
EC Number	European Community number
EmS	Emergency Schedule
ENCS	Existing and New Chemical Substances (Japan)
EPA	Environmental Protection Agency
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO	International Civil Aviation Organization
IECSC	Inventory of Existing Chemical Substances in China
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Organization for Standardization
KECI	Korean Existing Chemicals Inventory
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
MARPOL	International Convention for the Prevention of Pollution from Ships
n.o.s.	Not Otherwise Specified
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOELR	No Observable Effect Loading Rate
NZIoC	New Zealand Inventory of Chemicals
OECD	Organization for Economic Cooperation and Development
OEL	Occupational exposure limits
PBT	Persistent, Bioaccumulative and Toxic substance
PICCS	Philippines Inventory of Chemicals and Chemical Substances
PMT	Persistent, Mobile and Toxic
PPE	Personal protective equipment
QSAR	Quantitative Structure Activity Relationship
REACH	Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) Regulation (EC 1907/2006)
RID	Agreement concerning the International Carriage of Dangerous Goods by Rail (Europe)
SADT	Self-Accelerating Decomposition Temperature
SAR	Structure-activity relationship
SDS	Safety Data Sheet
SL	Surface Limit
STEL	Short Term Exposure Limit
STOT RE	Specific target organ toxicity - Repeated exposure
STOT SE	Specific target organ toxicity - Single exposure
SVHC	Substance of very high concern

TCSI	Taiwan Chemical Substance Inventory
TDG	Transport of Dangerous Goods (Canada)
TSCA	Toxic Substances Control Act (United States)
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile organic compounds
vPvB	Very Persistent and Very Bioaccumulative
vPvM	Very Persistent and Very Mobile
As	Allergenic substance
DS	Dermal Sensitizer
Ot	Ototoxicant
pOt	Ototoxicant - potential to cause hearing disorders
PS	Photosensitizer
RS	Respiratory Sensitizer
S	Sensitizer
poS	Sensitizer - capable of causing occupational asthma
Sa	Simple asphyxiant
Sd	Skin designation
pSd	Skin designation - potential for cutaneous absorption
Sdv	Skin designation - vacated
Sk	Skin notation
dSk	Skin notation - danger of cutaneous absorption
pSk	Skin notation - potential for cutaneous absorption

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity***	Calculation method***
Acute dermal toxicity***	Calculation method***
Acute inhalation toxicity - gas***	Calculation method***
Acute inhalation toxicity - vapor***	Calculation method***
Acute inhalation toxicity - dust/mist***	Calculation method***
Skin corrosion/irritation***	Calculation method***
Serious eye damage/eye irritation***	Calculation method***
Respiratory sensitization***	Calculation method***
Skin sensitization***	Calculation method***
Mutagenicity***	Calculation method***
Carcinogenicity***	Calculation method***
Reproductive toxicity***	Calculation method***
STOT - single exposure***	Calculation method***
STOT - repeated exposure***	Calculation method***
Chronic aquatic toxicity***	Calculation method***
Acute aquatic toxicity***	Calculation method***
Aspiration hazard***	Calculation method***
Ozone***	Calculation method***

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 04/11/2025

Reason for revision Updated as per GHS

This SDS complies with the requirements of UK REACH Regulations SI 2019/758 (as amended)
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

DECLARATION OF PERFORMANCE

Number: UK9-09

UK DECLARATION OF PERFORMANCE

In compliance with the Construction Products Regulation (EU) No 305/2011 as amended by The Construction Products (Amendment etc.) (EU Exit) Regulations 2019 (S.I. 2019/465)

1 Unique identification code of the product-type:

CONBEXTRA GP, 1171006, 1171011

2 Intended use as foreseen by the manufacturer of the construction product in accordance with the harmonised technical specification:

Anchoring of reinforcing steel bar

Structural and non-structural repair methods 3 and 4

3 Name, registered trade name or registered trade mark and contact address of the manufacturer as set out in article 11 (5)

Fosroc International Limited
Drayton Manor Business Park
Coleshill Road, Tamworth
Staffordshire, B78 3XN, UK

4 Name and contact address of the authorised representative who has received a mandate for the tasks set out on Article 12 (2):

Not Relevant

5 System or systems for assessment and verification of constancy of performance of the construction product in accordance with Annex V

System 2+

6a In the case of a declaration of performance concerning a construction product that is covered by a harmonised standard

EN 1504-3:2005
EN 1504-6:2006

The notified body

BBA 0836

6b In case of a declaration of performance concerning a construction product for which a European Technical Assessment was issued

Not Relevant

Issue Number: 1

Number: UK9-09

7 Declared performance

Essential Characteristics	Performance	Test Method
Compressive strength	Class R4: ≥ 45 MPa	EN 12190:1999
Adhesion strength by pull-off test	≥ 2.0 MPa	EN 1542:1999
Thermal compatibility: freeze-thaw cycling with immersion	≥ 2.0 MPa	EN 13687-1
Elastic modulus	≥ 20 GPa	EN 13412:2002
Testing of anchoring products by the pull-out method	≤ 0.6 mm at 75 kN load	EN 1881:2006
Chloride ion content	≤0.05%	EN 1015-17:2000
Carbonation resistance	Pass	EN 13295:2005
Reaction to fire	Class A1	EN 13501-1
Dangerous substances	Complies with 5.3 (EN1504-6) Complies with 5.4 (EN1504-3)	

8 Appropriate Technical Documentation and/or Specific Technical Documentation:

Not Relevant

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued under the sole responsibility of the manufacturer identified above.

Signed for the manufacturer and in the name of the manufacturer by:

Jon Potter

Technical Manager

Place and Date of Issue: 30th June 2022 Tamworth

Issue Number: 1

METHOD STATEMENT

HIGH-FLOW, NON-SHRINK, CEMENTITIOUS GROUT - Conbextra GP

1. Foundation Surface

a. 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 / scabbled to a sound base. Bolt holes or fixing pockets must be blown clean of any dirt or debris.

2. Pre-soaking

a. For a minimum of 2 hours prior to grouting, the area of cleaned foundation should be flooded with fresh water. Immediately before grouting takes place, any free water should be removed. Particular care should be taken to blow out all bolt holes and pockets.

b. In certain situations, such as likelihood of damage to surrounding areas, water flooding / prolonged soaking of the concrete substrate may not be possible.

c. In such cases, immediately prior to the grout application, the cleaned concrete should be water wetted, for example by spraying, until the surface becomes saturated / no longer shows signs of rapid drying; particular care to be taken on hot days and or in direct sunlight. Before grouting takes place, any free water should be removed, taking care to blow out all bolt holes and pockets.

3. Base plate

a. 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.

4. Levelling shims

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

5. Formwork

a. The formwork should be constructed to be leakproof as Conbextra GP is a free-flowing grout. This can be achieved by using foam rubber strip or Nitoseal MS60* beneath the constructed formwork and between joints.

b. In some cases it is practical to use a sacrificial semi-dry sand and cement formwork. The formwork should include outlets for the pre-soaking water.

c. 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 150 mm on the pouring side and 50 mm on the opposite side. There should be no gap at the flank sides.

6. Mixing

a. Water addition: Flowable: 4.0 - 4.5 litres per 25Kg bag
Trowellable: 3.0 - 3.6 litres per 25Kg bag

b. For mixing quantities up to 50 kg a high power, 280 to 640 rpm, 110 volt drill, fitted with a Conbextra Mixing Paddle (MR3) is suitable.

c. For best results a mechanically powered grout mixer should be used. 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.

d. Prior to the first mix the vessel should be wetted and drained. The selected water content should be accurately measured into the mixer. Slowly add the total contents of the Conbextra GP bag, mix continuously for 5 minutes, ensuring a smooth, even consistency is obtained.

7. Placing

a. At trowellable consistency, place the grout manually into the prepared area or void before tamping / bedding. Trowel off excess to finish.

b. At flowable consistency, place the grout within 20 minutes of mixing to gain the full benefit of the expansion process.

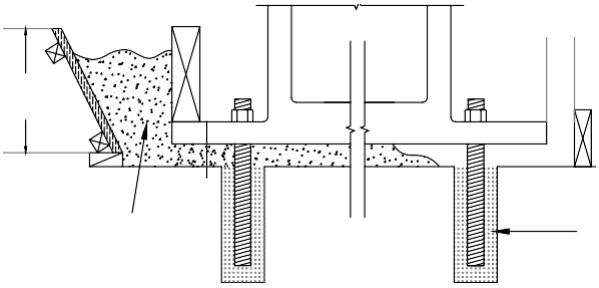
c. Conbextra GP can be placed in thicknesses up to 75 mm in a single pour.

d. For thicker sections use Conbextra TS grout.

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

f. Continuous grout flow is essential.

g. Example of a typical hopper system:
Removable hopper: For larger pours the grout may be hand placed or pumped into a removable hopper (trough)



1. Conbextra GP or Lokfix* (first stage))

2. Conbextra GP poured or pumped into removable hopper (second stage)

h. 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

i. 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.

j. Where large volumes have to be placed Conbextra GP may be pumped. Screw feed and piston pumps are suitable for this purpose.

k. When the Conbextra GP has reached trowellable consistency, the unrestrained portion should be cut back to the baseplate/ bearing plate.

8. Curing

a. On completion of the grouting operation, exposed areas should be thoroughly cured with Concure WB curing membrane, continuous application of water and/or wet hessian.

9. Anchoring applications

a. Holes should be drilled with a rotary percussive air flush drill and deformed bars should be used. Diamond cored holes should be roughened or under-reamed. The holes should be prewetted for a minimum of 2 hours prior to grouting. Remove water before grouting.

b. The mixed grout should be poured into the hole and the bar pushed through the grout.

10.Cleaning

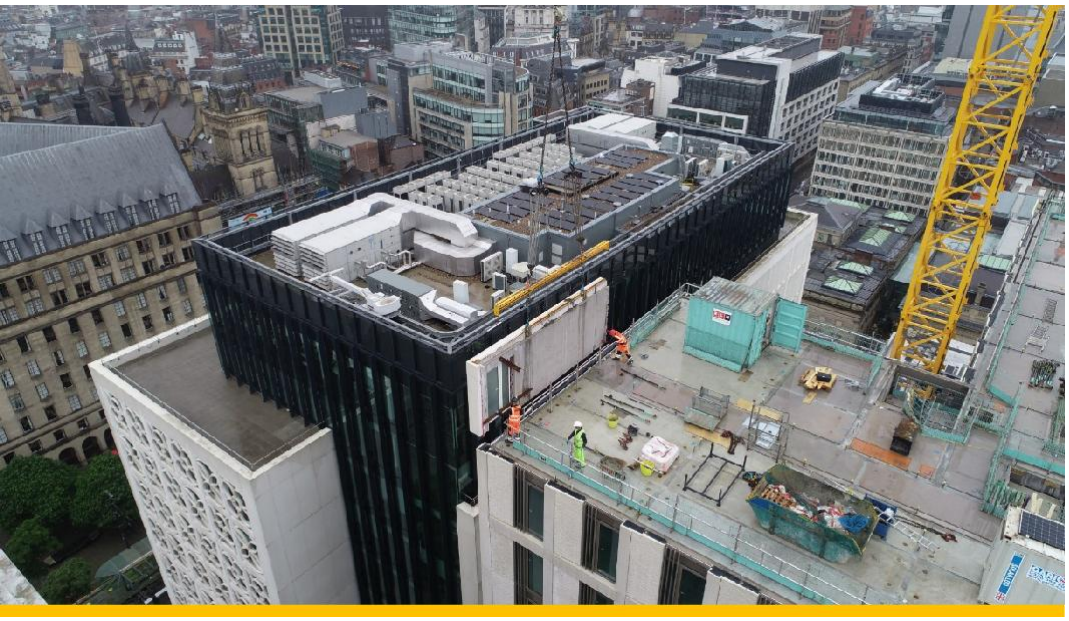
a. Conbextra GP should be removed from tools and equipment with clean water immediately after use. Cured material can be removed mechanically, or with Fosroc Acid Etch.

PROJECT REFERENCES

FOSROC

constructive solutions

CASE STUDY



Student Housing

Manchester

CUSTOMER
RLH Construction

SECTOR
Buildings Residential

DATE
2019 - 2020

PRODUCTS
- Conbextra GP
- Conbextra PM
- Conbextra BM

THE PROJECT

A 17 storey block of apartments was to be constructed in the St Peters Square area of Manchester. The site, located close to the city centre and University area, had very limited access due to a large retail park on one side and a canal on the other. This meant that standard construction methods such as pouring a concrete frame would be impossible, so other methods needed to be looked at. A fast, reliable method of construction was required.

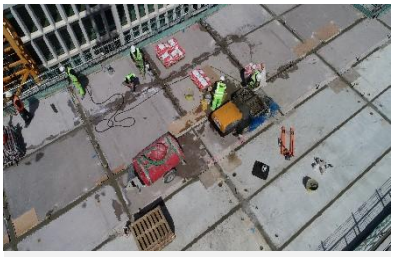
THE SOLUTION

The main contractor employed RLH Construction to use Architectural Precast Sandwich Panels. This method of construction involved the precast panels being cast offsite then brought to site on lorries and craned into place. The external panels were already cast architecturally to the required external design. The internal floors were then placed and grouted, and finally the internal walls were erected. Once this process had been completed, the next floor was placed following the same sequence. As each floor was constructed, pre-fitted bathroom pods were lowered into the rooms before the next floor was placed, removing the need for bathroom fit out. The floors were grouted using Fosroc Conbextra GP, and the precast external and internal walls were placed onto Fosroc Conbextra BM (Bedding Mortar). Once in place, the vertical joints in the walls were grouted using Fosroc Conbextra PM, a thixotropic grout that can be pumped directly into a vertical joint without it falling out, ready for it to be trowelled flush with the walls.

THE BENEFITS

RLH Construction were able to achieve a rapid turnaround on each floor, progressing onto the next floor much more quickly than with conventional construction. This was due in part to RLH being highly skilled in placing Fosroc grouting products and to the fact that Conbextra grouts will achieve strengths in excess of 60N much faster than normal concrete. With the precast units arriving to site already formed, there was far less remediation to contend with and it was just a case of fixing and grouting them in place, with the Fosroc grouts providing a very strong, solid bond.

External panels being lifted into place



Floor panels grouted with Conbextra GP

Vertical panels grouted with Conbextra BM and PM

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Fosroc International Ltd, Drayton Manor Business Park, Coleshill Road, Tamworth, Staffordshire, B78 3XN, UK

www.fosroc.com

CASE STUDIES

Thackeray Building, London

The Thackeray Building is a 5-storey block of residential flats in Herbrand Street dating back to the early 1900's, constructed of concrete and brick. Over the years the concrete elements have suffered from water ingress which has resulted in spalling and also corrosion of steel 'H' sections above the windows. Fosroc were able to supply a total solution package.

ICAIR, Sheffield

During construction the concrete to form the tanks had been poured to the wrong measurements and in order to correct the situation a product was required that could withstand the pressure and load from the stored water and gain a compressive strength similar to the parent concrete. Repairs were successfully carried out using Renderoc LA60.

A404M, Cannon Lane

Works included reconstruction of the joint edges and repairing defective concrete in the bridge deck with a clear objective to get the works completed quickly and reduce the closure of the very busy major route.
Patchroc 250 thick section repair mortar which exceeds the requirements of BS EN 1504, and Highways England was successfully installed minimising disruption and allowing a rapid return to service.

Central Station, Glasgow

When platform repairs were required at Central Station, Glasgow Fosroc's Paveroc pavement reinstatement mortar was selected due to its rapid strength gain which means it can accept pedestrian traffic at 12 hours. In addition to providing a rapid return to service of the platforms Paveroc's high strength, abrasion and weather resistance ensures that it will provide a durable repair.

Victoria Hospital, Blackpool

The Maternity Wing at Blackpool Victoria Hospital was constructed in the 1960's and over the years had been subjected to many environmental stresses, particularly due to its marine location. Fosroc provided a specification to repair the degraded concrete and bring a new lease of life to the structure using the Renderoc Repair System.

Oldbury Viaduct, M5 Midlands

Fosroc delivered a sustainable motorway repair solution using Renderoc LA60 meeting Highways England's quality standards. Fosroc successfully introduced innovations in product design, and in bulk supply, maintaining regular supply to site through a fully integrated supply chain and production process. This approach helped reduce costs, save time and enabled concrete repairs to be carried out effectively in a challenging environment.

Fosroc offers a full range of construction chemical solutions, helping to protect structures throughout the world. Please refer to our brochures, which include:

www.fosroc.com

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