

M & S RESTORATIONS LTD

marble – slate – limestone – granite - terrazzo

Method Statement

For

Ardmore construction

@

Hennessey Town Hall

TERRAZZO INFILL REPAIRS

M & S Restorations Limited
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In conjunction with

Peninsula Business Services Limited

M & S RESTORATIONS LTD

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Registered in England no. 5552361 VAT No. 867 6203 02

Hennessey town hall terrazzo repairs			
Task / Activity Terrazzo infills on corridors		Job Number/Method Statement No:	MS9141-22
		Requested By: Ardmore	
Task / Location Terrazzo repairs on several areas of the Job /Entrance Lobby		Date 26/09/22	Author David Mauricio
Start Date:	27/09/22	Duration	16 WEEKS
Start Time:	08:00 hrs		
Finish Time:	17:00 hrs		
Emergency Contact:	Carlos Silva		
Contact Number:	0788908659		
RESOURCES			
Position: (Supervisor, etc.)		Name	Contact No. (Supervisor only)
Supervisor/First Aider Operatives		JOAQUIM SANTOS Alberto Rodrigues Erwin Demushi Simao Oliveira	(Supervisor) 07739460310
Equipment		Materials (COSHH)	
1. 5 INCH ANGLE GRINDER 2. WET DRY M CLASS HOOVER 3. 110V VERTICAL MIXER 4. 110V POLISHER MACHINE 5. ELIX MACHINE 6. KLEVER MACHINE		• PORTLAND CEMENT • SBR	
INDUCTION/ ACCESS/EGRESS/STORAGE All M & S Restoration's personal to comply with onsite rules regarding access and routes as explain on introductory site induction. Materials, tools, and plant will be delivered in accordance with logistic officer. Designated store areas to be formed whit barriers and appropriated signage to be use. All operatives to be brief and records of a toolbox talk regarding the works to be keep on site office file. COVID -19 related rules to be always followed. A specific site briefing on the CORONA Virus is to be carried out prior to works to start. A construction Leadership council rules and advised document is to be read and understood and all operatives are always to obey to the document guidelines. M&s Restorations are to be designated area for storage of materials and COSHH products, this particularly ones are to be keep safe in a designated enclosed box, properly labelled and locked at all times.			
PERMITS All necessary specific permits are to be obtained with in Ardmore management team.			
PREPARATION/PLANNING			

All operatives to be inducted on site.
 All operatives are sign in and sign out on a daily basis.
 All operatives will read and signs RAMS.
 Correct and mandatory PPE to be use at all times by M & S Restoration's personal.
 All works to be carried out on co-ordination with onsite team management.
 A program/schedule of works to be issued by Ardmore as with the PO.

TRAINING AND COMPETENCY

Joaquim Santos SSSTS

Operatives shall have in date CSCS trade card.
 Training records to be keep on site.

STONE SUPPLIER

Bold minerals

SUMMARY OF WORKS

METHOD

- All operatives to attend a briefing by the M&S Restorations supervisor prior to commence any works.
- Lease whit site manager from access and egress.
- Exclusion area to be in place, and alternative routes to be agreed and pointed.
- **IN SITU TERRAZZO**
 - All areas are to be segregated from public/other trades
 - This will be done by a total closure of the corridor section by the means of the chapter 8 barriers, previously agreed with Ardmore management on site.
 - All operatives to be daily brief of the occurrent activities by the site supervisor prior to start works.
 - Were the existing line needs to be corrected, a small cut will be carried out with a 110v 5-inch grinder assisted with a m class Hoover to control the dust using a on tool extraction adaptor to connect with the m class dust extraction.
 - The areas are to be hoovered and primed using SBR.
 - Whit the help of a 150l mixer and using a mix of 2 parts marble chippings by 1part cement and SBR produce a homogenic paste and pour into the area.
 - Allow to settle for 1 hour.
 - Using a terrazzo metal roll compress all the paste so the chippings get as much compacted as possible.
 - Allow to dry for 48 hours.
 - Using a 110v concrete block grinding machine and suitable water suppression grind the area using two grids of finish blocks. (24 and 16)
 - The use of a wet vacuum hoovers to control the grinding slurry as it is created from the grinding will be mandatory.
 - The slurry is to store on watertight containers and removed from site by M&S Restorations authorized waste disposal company.
 - To finish to the desirer finish, a KLEVER floor machine are to be used, this process will be assisted with water suppression.
 - Grinding will be always assisted with a wet vacuum device to control, the water excess.
 - Allow to dry.
 - Using the specified seal, apply two coats using a roll or a spray applicator.
 - Inspection
 - Handover.

EMERGENCY PROCEDURES

All M & S Restoration's operatives and will comply with the emergency procedures laid down by the main contractor in the Site Safety Induction and in accordance with M & S Restorations Site Safety manual.

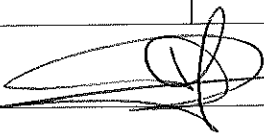
SITE SPECIFIC REQUIREMENTS

Heritage

The history of the building requires extra vigilance during the working day due to its heritage status. Operatives shall complete a toolbox talk in making sure they do not enter areas of significant heritage refurbishment and must observe all signage. These areas are not to be entered without authorisation and is a red card offence if doing so.

Asbestos

Areas of the project have received a comprehensive asbestos survey with sampling undertaken and results provided to Ardmore. Any areas of concern whereby material is identified as unusual must cease, in case the event of any work taking place for intrusive works nearby material is identified as being unusual work must cease until an Asbestos trained manager has visited the area and viewed the material causing concern. Operatives shall receive a toolbox talk on Asbestos awareness.

Relevant Risk Assessments	Other Relevant Documents	PPE Requirements
Dust control Abrasive Wheels Manual Handling Hand Tools COVID 19	COSHH assessment on stone dust COSHH assessment on Portland cement	(Site standard requirements plus) Safety boots to BS EN345 Hi-Vis jacket Safety glasses to BS EN 166 F Gloves to BS EN 388 Hearing protection to EN 352 (when required) Dust masks FFP3(when required) Hard Hats to EN397 PVC gloves (when required) Safety GOGGLE EN166
Signed		Dated 16/09/22

METHOD STATEMENT/RISK ASSESSMENT BRIEFING REGISTER

M&S RESTORATIONS LTD

M&S

RESTORATION'S LTD

TECHNICAL DATA SHEET'S



Uniclass L621

Cl/SfB

Yq2

March 2014

ULTIMATE DATA

PORTLAND-LIMESTONE CEMENT

(BS EN 197-1: CEM II/A-L and CEM II/A-LL) **Health and Safety Information**

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Identification of the substance/preparation

An odourless white to grey powder mainly insoluble in water. When water is added it becomes a binder for construction applications. This data sheet applies to the following cements:

- Portland Limestone Cement (PLC)
- Mastercrete
- Snowcrete White Cement (CEM II)
- General Purpose Cement

1.2 Use of the substance/preparation

Common cement is used as a hydraulic binder for the production of concrete, mortars, grouts, etc.

1.3 Company identification

Lafarge Tarmac Cement

Portland House

Bickenhill Lane, Birmingham B37 7BQ

Technical helpdesk: 0845 812 6232

Email: info-cement@lafargetarmac.com

1.4 Emergency telephone

Emergency telephone number available during office hours:
Tel 0845 812 6232

Emergency telephone number available outside office hours: No

2. HAZARD IDENTIFICATION

When cement reacts with water, for instance when making concrete or mortar, or when the cement becomes damp, a strong alkaline solution is produced.

2.1 Hazard characterisation

R37/38 Irritating to respiratory system and skin

R41 Risk of serious damage to eyes

R43 May cause sensitisation by skin contact



IRRITANT

2.2 Primary route(s) of entry

Inhalation: Yes

Skin - eyes: Yes

Ingestion: No, except in accidental cases

2.3 Human health

Inhalation: Frequent inhalation of large quantities of cement dust over a long period of time increases the risk of developing lung diseases.

Eyes: Eye contact with cement (dry or wet) may cause serious and potentially irreversible injuries.

Skin: Cement may have an irritating effect on moist skin (due to transpiration or humidity) after prolonged contact. Prolonged skin contact with wet cement or fresh concrete may cause serious burns because they develop without pain being felt (for example when kneeling in fresh concrete even when wearing trousers). Repeated skin contact with wet cement may cause contact dermatitis. For more details see Reference (1).

2.4 Environment

Under normal use, the product is not expected to be hazardous to the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical composition

Common cement types according to the EN 197-1 (Common cements) and EN 197-4 (Blast furnace cements) standards. The principal constituents of these cements are calcium silicates, aluminates, ferro-aluminates and sulfates. Small amounts of alkalis, lime, magnesia and chlorides are also present together with trace amounts of chromium compounds. Additional constituents may also be present - eg, fly ash, limestone, clay and granulated blast furnace slag.

3.2 Components presenting a health hazard

Contains less than 1% crystalline silica.

Substance: Portland Cement Clinker

Concentration range 5 – 100%
(by weight in cement):

EINECS: 266-043-4

CAS: 65997-15-1

Symbol (C&L):



IRRITANT

R: R37

R38

R41

R43

4. FIRST AID MEASURES

When contacting a physician, take this safety datasheet with you.

4.1 After significant accidental inhalation

Move person to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops or if discomfort, coughing or other symptoms do not subside.

4.2 After contact with eyes

Do not rub eyes, as additional cornea damage is possible by mechanical stress. Remove any contact lenses and open the eyelid(s) widely to flush eye(s) immediately by thoroughly rinsing with plenty of clean water for at least 45 minutes to remove all particles. If possible, use isotonic water (0.9% NaCl). Contact a specialist of occupational medicine or an eye specialist.

4.3 After skin contact

For dry cement, remove and rinse abundantly with water. For wet cement, wash skin with water. Remove contaminated clothing, footwear, watches, etc, and clean thoroughly before re-using them. Seek medical treatment in all cases of irritation or burns.

4.4 After significant accidental ingestion

Do not induce vomiting. If person is conscious, wash out mouth with water and give plenty of water to drink. Get immediate medical attention or contact anti poison centre.

5. FIRE-FIGHTING MEASURES

5.1 Flashpoint and method

Cements are non-combustible and non-explosive and will not facilitate nor support combustion of other materials.

5.2 Extinguishing media

All types of extinguishing media are suitable.

5.3 Fire fighting equipment

Cement poses no fire-related hazards. No need for specialist protective equipment for fire fighters.

5.4 Combustion products

None.

5.5 Flammable limits: Lower explosion limit LEL – Upper explosion limit UEL

Not applicable.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal protective measures

Wear protective equipment as described under Heading 8 and follow the advice for safe handling and use given under Heading 7. Emergency procedures are not required.

6.2 Environment protection measures

Do not wash cement down sewage and drainage systems or into bodies of water (eg. streams).

6.3 Methods for cleaning up

Recover the spillage in a dry state if possible.

Dry cement: Use dry cleanup methods that do not cause airborne dispersion - eg:

- Vacuum cleaner (Industrial portable units, equipped with high efficiency particulate filters (HEPA filter) or equivalent technique).
- Wipe up the dust by mopping, wet brushing or water sprays or hoses (fine mist to avoid the dust becoming airborne) and remove slurry. If not possible, remove by slurring with water (see Wet cement).

When wet cleaning or vacuum cleaning is not possible and only dry cleaning with brushes can be done, ensure that the workers wear appropriate personal protective equipment and prevent dust from spreading.

Avoid inhalation of cement and contact with skin. Place spilled materials into a container. Solidify before disposal as described under Heading 13.

Wet cement: Clean up wet cement and place in a container. Allow material to dry and solidify before disposal as described under Heading 13.

7. HANDLING AND STORAGE

Do not handle or store near food and beverages or smoking materials.

7.1 Handling

Follow the recommendations as given under Heading 8.

Avoid dust development:

- For (bagged) cement used in open-ended mixers: first add the water and then carefully add the cement. Keep the height of the fall low. Start the mixing smoothly. Do not compress empty bags, except when contained in another clean bag.
- To clean up dry cement, see Heading 6.3.

Carrying cement bags may cause sprains and strains to the back, arms, shoulders and legs. Handle with care and use appropriate control measures.

7.2 Storage

Bulk cement should be stored in silos that are waterproof, dry (internal condensation minimised), clean and protected from contamination.

Engulfment hazard: To prevent burial or suffocation, do not enter a confined space, such as a silo, bin, bulk truck, or other storage container or vessel that stores or contains cement without taking the proper security measures. Cement can build up or adhere to the walls of a confined space. The cement can release, collapse or fail unexpectedly.

Packed product should be stored in unopened bags clear of the ground in cool, dry conditions and protected from excessive draught in order to avoid degradation of quality.

Bags should be stacked in a stable manner.

7.3 Control of soluble Cr (VI)

For product treated with a Cr (VI) reducing agent according to the regulations given in Heading 15, the effectiveness of the reducing agent diminishes with time. Therefore cement bags and/or delivery documents will contain information on the period of time ('shelf life') for which the manufacturer has established that the reducing agent will continue to maintain the level of soluble Cr (VI) below the imposed limit of 0.0002%, according to EN 197-10. They will also indicate the appropriate storage conditions for maintaining the effectiveness of the reducing agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure limit values (Workplace Exposure Limits (WEL))

WEL 8hr Time Weighted Average (TWA):

- Total inhalable dust 10mg/m³
- Respirable dust 4mg/m³

8.2 Exposure controls

8.2.1 Occupational exposure controls

General: During work avoid kneeling in fresh mortar or concrete wherever possible. If kneeling is absolutely necessary then appropriate waterproof personal protective equipment must be worn.

Do not eat, drink or smoke when working with cement to avoid contact with skin or mouth. Immediately after working with cement or cement-containing materials, workers should wash or shower or use skin moisturisers. Remove contaminated clothing, footwear, watches, etc, and clean thoroughly before re-using them.

Respiratory protection: When a person is exposed to dust above exposure limits, use appropriate respiratory protection. It should be adapted to the dust level and conform to the relevant EN standard. Suitable respiratory protection should be worn to ensure that personal exposure is less than the WEL.

Eye protection: Wear approved glasses or safety goggles according to EN 166 when handling dry or wet cement to prevent contact with eyes.

Skin protection: Use impervious, abrasion and alkali-resistant gloves (made of low soluble Cr (VI) containing material), internally lined with cotton, boots, closed long-sleeved protective clothing and additionally skin care products (including barrier creams) to protect the skin from prolonged contact with wet cement. Particular care should be taken to ensure that wet cement does not enter the boots. In some circumstances such as when laying concrete or screed, waterproof trousers or kneepads are necessary.

8.2.2 Environmental exposure controls

According to available technology.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 General information

Dry cement is a finely ground inorganic material (odourless, grey or white powder)

9.2 Physical data

Mean particle size: 5-30 µm

Solubility in water (T = 20 °C): slight (0.1-1.5 g/l)

Density: 2.75-3.20 g/cm³

Apparent density (ES): 0.9-1.5 g/cm³

pH (T = 20°C in water): 11-13.5

Boiling/melting point: > 1 250 °C

Vapour pressure, vapour density, evaporation rate, freezing point, viscosity: Not relevant.

10. STABILITY AND REACTIVITY

10.1 Stability

Dry cements are stable as long as they are stored properly (see Heading 7) and compatible with most other building materials. When mixed with water, cements will harden into a stable mass that is not reactive to normal environments.

10.2 Conditions to avoid

Humidity during storage may cause lump formation and loss of product quality.

10.3 Materials to avoid

Uncontrolled use of aluminium powder in wet cement should be avoided as hydrogen produced.

10.4 Hazardous decomposition products

Cements will not decompose into other hazardous by-products and do not polymerise.

11. TOXICOLOGICAL INFORMATION

11.1 Acute effects

Eye contact: Direct contact with cement may cause corneal damage by mechanical stress, immediate or delayed irritation or inflammation. Direct contact by larger amounts of dry cement or splashes of wet cement may cause effects ranging from moderate eye irritation (eg, conjunctivitis or blepharitis) to chemical burns and blindness.

Skin contact: Dry cement in contact with wet skin or exposure to moist or wet cement may cause thickening, cracking or fissuring of the skin. Prolonged contact in combination with abrasion can cause severe burns.

Acute dermal toxicity: Limit test, rabbit, 24 hours contact, 2 000 mg/kg body weight – no lethality [Reference (2)].

Ingestion: Swallowing large quantities may cause irritation to the gastrointestinal tract.

Inhalation: Cement may irritate the throat and respiratory tract. Coughing, sneezing, and shortness of breath may occur following exposures in excess of occupational exposure limits.

11.2 Chronic effects

Inhalation: Chronic exposure to respirable dust in excess of occupational exposure limits may cause coughing, shortness of breath and may cause chronic obstructive lung disease (COPD).

Carcinogenicity: A causal association between cement exposure and cancer has not been established [Reference (1)].

Contact dermatitis/Sensitising effects: 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 [Reference (4)]. The response may appear in a variety of forms ranging from a mild rash to severe dermatitis and is a combination of those two mechanisms. An exact diagnosis is often difficult to assess. If the cement contains a soluble Cr (VI) reducing agent and as long as the mentioned period of effectiveness of the chromate reduction is not exceeded, a sensitising effect is not expected [Reference (3)].

11.3 Medical conditions aggravated by exposure

Inhaling cement dust may aggravate existing respiratory system disease(s) and/or medical conditions such as emphysema or asthma and/or existing skin and/or eye conditions.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity

The product is not expected to be hazardous to the environment (LC50 aquatic toxicity not determined). The addition of large amounts of cement to water may, however, cause a rise in pH and may therefore be toxic to aquatic life under certain circumstances.

12.2 Mobility

Dry cement is not volatile but might become airborne during handling operations.

12.3 Persistence and degradability/Bio accumulative potential/Results of PBT assessment/Other adverse effects

Not relevant as cement is an inorganic material. After hardening, cement presents no toxicity risks.

13. DISPOSAL CONSIDERATIONS

13.1 Product - cement that has exceeded its shelf life

When demonstrated that it contains more than 0.0002% soluble Cr (VI): shall not be used/sold other than for use in controlled closed and totally automated processes or should be recycled or disposed of according to local legislation or treated again with a reducing agent.

13.2 Product - unused residue or dry spillage

Pick up dry. Mark the containers. Possibly reuse depending upon shelf life considerations and the requirement to avoid dust exposure. In case of disposal, harden with water and dispose according to 13.4.

13.3 Product – slurries

Allow to harden, avoid entry in sewage and drainage systems or into bodies of water (eg, streams) and dispose of as indicated in 13.4.

13.4 Product - after addition of water, hardened

Dispose of according to the local legislation. Avoid entry into the sewage water system. Dispose of the hardened product as concrete waste. Due to the inertisation, concrete waste is not a dangerous waste.

EWG entries: 10 13 14 (waste from manufacturing of cement – waste concrete or concrete sludge) or 17 01 01 (construction and demolition wastes - concrete).

13.5 Packaging

Completely empty the packaging and process it according to local legislation.

EWG entry: 15 01 01 (waste paper and cardboard packaging).

EWG entry: 15 01 02 (plastic packaging).

14. TRANSPORT INFORMATION

Cement is not covered by the international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID) and therefore no classification is required.

No special precautions are needed apart from those mentioned under Heading 8.

15. REGULATORY INFORMATION

15.1 Classification and labelling of cement according to 1999/45/EC

Risk phrases

R37/38 Irritating to respiratory system and skin

R41 Risk of serious damage to eyes

R43 May cause sensitisation by skin contact

Safety phrases

S2 Keep out of reach of children

S22 Do not breathe dust

S24/25 Avoid contact with skin and eyes

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection

S46 If swallowed, seek medical advice immediately and show this container or label



15.2 The marketing and use of cement is subject to a restriction on the content of soluble Cr (VI)

From 17 January 2005, those cements which naturally contain more than 2 ppm of soluble hexavalent chromium (chromium (VI)) by dry weight of cement, shall be treated with a chemical reducing agent (such as ferrous sulfate) that maintains the level of hexavalent chromium in the cement to below 2 ppm by dry weight of cement. The effectiveness of the reducing agent reduces with time, therefore cement bags and/or delivery documents will contain information on the period of time ('shelf life') for which the manufacturer has established that the reducing agent will continue to limit the level of hexavalent chromium to less than 2 ppm by dry weight of cement. They will also indicate the appropriate storage conditions for maintaining the effectiveness of the reducing agent.

15.3 National legislation/requirements

CONIAC Health Hazard Information Sheet No. 26 (CEMENT)

Health and Safety at Work etc Act 1974

Control of Substances Hazardous to Health (Regulations)

PORTLAND CEMENT DUST – criteria document for an occupational exposure limit. June 1994 (ISBN 07176 – 0763 – 1)

HSE Guidance Notes EH26 (Occupational Skin Diseases – Health and Safety Precautions)

HSE Guidance Note EH40 (Workplace Exposure Limits)

Any authorised manual on First Aid by St. John's/St. Andrew's/Red Cross

Manual Handling Operations Regulations

Environmental Protection Act

16. OTHER INFORMATION

Abbreviations

- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transport Association
- ADR/RID: Agreement on the transport of dangerous goods by road/ Regulations on the international transport of dangerous goods by rail
- LC50 Lethal Concentration where 50% of the test animals dies.
- OEL : Occupational Exposure Limit
- TWA: Time Weighted Averages

REFERENCES

- (1) Portland Cement Dust - Hazard assessment document EH75/7, UK Health and Safety Executive, 2006. Available from: <http://www.hse.gov.uk/pubns/web/portlandcement.pdf>
- (2) Observations on the effects of skin irritation caused by cement, Kietzman et al, Dermatosen, 47, 5, 184-189 (1999).
- (3) European Commission's Scientific Committee on Toxicology, Ecotoxicology and the Environment (SCTEE) opinion of the risks to health from Cr (VI) in cement (European Commission, 2002).
- (4) Epidemiological assessment of the occurrence of allergic dermatitis in workers in the construction industry related to the content of Cr (VI) in cement, NIOH, Page 11, 2003.

The information on this data sheet reflects the currently available knowledge and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product, including the use of the product in combination with any other product or any other process, is the responsibility of the user. It is implicit that the user is responsible for determining appropriate safety measures and for applying the legislation covering his own activities.

The information in this data sheet is accurate at the time of printing, but Lafarge Tarmac Cement reserves the right to amend details as part of its product development programme.

DISCLAIMER:

This material safety data sheet (MSDS) is based on the legal provisions of the REACH Regulation (EC 1907/2006; article 31 and Annex II), as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this MSDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this MSDS are based on the current state of scientific and technical knowledge at the date of issue indicated.

It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the MSDS supersedes all previous versions.

For further information

Technical helpdesk

Tel: 0845 812 6232

E-mail: info-cement@lafargetarmac.com

Customer services & sales

Tel: 0845 812 6300

E-mail: customerservice@lafargetarmac.com

 **LAFARGE
TARMAC**
It's what Britain's built on.



TECHNICAL DATA SHEET

SBR BONDING AGENT

PRODUCT DESCRIPTION:

Construction Chemicals SBR is a white styrene butadiene emulsion used to improve the properties of cement renders, screeds and mortars. It is also used in conjunction with Construction Chemicals Tanking Slurry as a priming coat or tight render basecoat. Used with Sulphate resistant cement it will resist the movement of salts with in wall.

USES:

High strength floor screeds.
Patching and repair mortar.
Thin section screeds.
As a bonding bridge for renders and Waterproofing.
Waterproof renders and screeds.

FOR USE IN CONSTRUCTION CHEMICALS

Tanking Systems
Dustproofing
Priming
Tiling

PROPERTIES:

Adhesion improved.
Flexural strenght improved.
Tensile strength increased.
Water impermeability reduced.
Shrinkage reduced.
Non corrosive to steel.
Increased abrasion resistance.

The more SBR that is added the greater the increase in performance however when it is used stronger than a 1;1 dilution with water it becomes very difficult to handle so this should be avoided.

TECHNICAL DATA

APPEARANCE:

Form:	Liquid
Colour:	White
Solids Content:	50% $\pm$ 1%
Application Temp Min:	+5°C
Flexural Strength:	Increase of 20/30% over unmodified mortar
Tensile Strength:	Increase of 20/30% over unmodified mortar
Abrasion Resistance:	up to 200%
Density:	Approx 1.01

APPLICATION - Screeding

Mix as per Table. Do not use neat SBR as a bonding grout, without adding cement. Maximum dilution of SBR with the gauging water is 1:4.

Free fall mixers are not suitable for SBR mortars; the higher performance forced action paddle type mixers are recommended for more efficient and speedier mixing of the mortars. For small quantities a slow speed drill and paddle is ideal.

Always keep the water/cement ratio to a minimum to enable correct working and compaction. A W/C ratio of less than 0.4 is advised.

Thick screeds should be laid in layers of 20mm thoroughly compacted and immediately followed by another 20mm, this repeated until the required thickness has been applied.

Mortar toppings should be finished by wood float or steel trowel. Care should be taken to prevent rapid drying of SBR mortars, by the use of polythene, damp hessian or concrete curing compounds. Always use sharp, clean and washed sand.

Maximum thickness per layer 40mm laid and compacted in two layers, as above.

Ensure hardened layers are mechanically "keyed", wetted and grouted.

Renderings, floor toppings etc., should be allowed to cure correctly. If temperatures drop to 2°C or less, protect the uncured mortar against frost.

Do not overmix SBR modified mortars. Do not "feather edge" SBR modified screeds.

METHOD OF APPLICATION

Preparation

The substrate must be free of all oil, grease, existing sealers or other contaminants. All loose material should be removed and a key provided using a scabbling machine or enclosed grit blaster. The surface should be well soaked with water prior to application of the bonding agent. Do not allow ponded water to remain on substrate.

Priming

Use of Construction Chemicals Bonding Grout. Mix 1 part by volume SBR with 1.5 parts fresh Portland cement to produce a stiff grout. Scrub this grout on to the pre dampened concrete or wall. DO NOT allow to dry prior to the application of subsequent layers.

Tanking - Use specification designed for your contract supplied by our technical dept.

MIX REF	MIX A	MIX B	MIX C	MIX D	MIX E	MIX F
Typical and suggested uses	Standard mortar for water resistant repairs. Patching floors, screeds, renders, re-pointing masonry	High performance mortar with improved chemical and physical properties. Waterproofing renders. For heavy duty applications.	Heavy duty floor screeds up to 25mm thickness. Heavy duty patch repair mortar for industrial use.	Adhesive mortar for bonding, slip bricks, tiles, coping stones, kerbs etc.	*MICRO-CONCRETE. Pourable waterproof repair concrete. For repairs of larger voids, for sections of repair up to 75mm in depth.	For use in below ground tanking situations as a primer prior to the application of tanking mix
MIX DESIGN. Aggregates are calculated as dry						Mix SBR / Water at a rate of 2 parts water 1 part SBR. Add OPC or sulphate resistant PC to a creamy consistency. See tailored specification
Portland cement	50kg	50kg	50kg	50kg	50kg	
Sand (see notes)	125kg	125kg	75kg	125kg	75kg	
Aggregate	-	-	75kg 3-6mm	-	120kg 5-10mm	
SBR	7LTR	9LTR	6LTR	9LTR	7LTR	
Water	Up to 12ltr	Up to 9ltr	Up to 12ltr	Up to 9ltr	Up to 13.5ltr	
TYPICAL YIELD	0.09 CUBIC MTR	0.09 CUBIC MTR	0.10 CUBIC MTR	0.09 CUBIC MTR	0.11 CUBIC MTR	Depends on cement ratio and background, typical 0.3– 04 ltr per sq. mtr
NOTES	An additional 25kg of sand should be added where a topping thickness is in excess of 12 mm	Where larger areas are to be treated over 12mm in thickness add a further 25kg sand	Semi dry screeds with a thickness in excess of 25mm require only 5 ltr of SBR	For thin section joints use zone 4 sand. Keep water content to a minimum.	Ensure shuttering is well sealed. Vibration is required.	Floor and wall joints should be sealed. Use SBR neat with a 3:1 sand cement mix, SEE SPEC

Application – Mortar/Render

A typical mix to produce a water resistant mortar or render would be sand:cement 4:1 using SBR Bonding Agent diluted 1:3 with water as the gauging water

Application – Bonding Agent

For bonding render or plaster use SBR Diluted with water 1:3 or 4. The Bonding coat should not be allowed to dry before application of the render or plaster.

Application – Dustproofer

For dustproofing concrete floors make sure that the surface is free of all oil, grease, existing sealers or other contaminants. Apply SBR Bonding Agent diluted 1 to 3 or 4 to the floor with a squeegee making sure that ponding does not occur. Leave for 24 hours to completely dry before allowing foot traffic.

Application – Tiling

See Mix D above.

DO NOT ALLOW SBR TO DRY IF OVERCOATING WITH MORTAR RENDERS OR PLASTERS. IN MOST APPLICATIONS SBR MUST BE DILUTED WITH WATER TO ENSURE A GOOD KEY TO THE SUBSTRATE.

75 TOWN GREEN STREET
ROTHLEY
LEICESTER LE7 7NW
TEL: 0116 230 1955 – FAX: 0116 230 1944
www.constructionchemicals.co.uk

PRODUCT SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Manufacturer/Supplier: SBR Bonding Liquid
Company: Construction Chemicals (UK) Ltd
75 Town Green Street, Rothley, Leicester LE7 7NW

Tel: 0116 2301955
Fax: 0116 2301944

2. COMPOSITION/INFORMATION OF INGREDIENTS

Chemical nature: Approximately 50% aqueous dispersion of a copolymer based on styrene butadiene

3. HAZARDS IDENTIFICATION

Critical hazards to man and the environment: None

4. FIRST AID MEASURES

General advice: Remove contaminated clothing
If inhaled: Keep patient calm, remove to fresh air, seek medical advice
On skin contact: Wash thoroughly with soap and water
On contact with eyes: Wash affected eyes for at least 15 minutes under running water with eyelids help open. Consult an eye specialist
On ingestion: Immediately rinse mouth and then drink plenty of water. Seek medical advice

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:
Water spray, dry extinguishing media, foam, carbon dioxide (CO2)

6. ACCIDENTAL RELEASE MEASURES

After spillage/leakage/gas leakage:
Large spillages should be pumped into containers; soak up remainder with absorbent material (eg Kieselgur). Small spillages can be swilled away with water. Waste water must be disposed of correctly.

7. CHANDLING AND STORAGE

Handling: No special measures necessary
Storage: Protect against freezing

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information on the lay out of plant – see 7
Components with workplace control parameters:
Butadiene – CAS No 106-99-0
Styrene – CAS No 100-42-5
Ethylbenzene – CAS No 100-41-4
Formaldehyde – CAS No 50-00-0

Refer to the current edition of the HSE Guidance Note EH40 on Occupational Exposure Limits (United Kingdom).

This product should be considered when making any assessment under the UK control of substances Hazardous to Health Regulations (COSHH) and amendments (United Kingdom).

Personal protective equipment:

General safety and hygiene measures.
Hands and/or face should be washed before breaks and at the end of a shift.
Avoid contact with eyes and prolonged skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Colour:	White
Odour:	Slightly aromatic
Change in physical state	
Solidification temperature:	0°C (water)
Boiling point:	100°C (water)
Flash point:	N/A
Explosion limits:	None
Ingestion temperature:	N/A
Vapour pressure:	(20°C) 23 mbar (water)
Density:	(20°C) approx. 1.02g/cm ³ DIN 51 757
Solubility in water:	Miscible
pH value:	(at g/l 23° C) approx 9.5 DIN 53 785
Viscosity:	(23° C) approx 3000mPa.s Brookfield LVT (Sp 2, 30Upm)

10. STABILITY AND REACTIVITY

Thermal decomposition:	No decomposition if used correctly
Hazardous reactions:	None is used correctly

11. TOXICOLOGICAL INFORMATION

In our experience and according to information available to us, the product is not harmful to health provided it is correctly handled and processed according to the given recommendations.

12. ECOLOGICAL INFORMATION

Elimination information.

The product can be virtually eliminated from water by a biotic process e.g. absorption onto activated sludge.

Behaviour and environmental fate.

Inhibition of degradation activity sludge is not to be anticipated during correct introduction of low concentrations.

Eco toxic effects.

Further ecological information:

Local effluent treatment regulations should be complied with

13. DISPOSAL RECOMMENDATIONS

Must be disposed of by special means eg suitable incineration, in accordance with local regulations.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).

14. TRANSPORT INFORMATION

Not classified as hazardous under transport regulations.

15. REGULATORY INFORMATION

Labelling according to EEC Directives:

Not subject to labelling in accordance with EEC Directives.

Handle in accordance with good industrial hygiene and safety practice.

National legislation's/regulations.

16. OTHER INFORMATION

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing law and regulations.

CORONAVIRUS

TOOLBOX TALK

PURPOSE

Coronavirus is an illness that affects the lungs and airways and is now an official pandemic which is affecting global communities. The purpose of this toolbox talk is to raise awareness of what it is, the symptoms and controls that need to be implemented to reduce the risk of it spreading.

SYMPTOMS

The most detailed breakdown of the symptoms comes from the World Health Organisation (WHO) analysis which found that the main symptoms include:

- Fever (88%)
- Dry cough (68%)
- Fatigue (38%)
- Coughing up sputum or thick phlegm from the lungs (33%)
- Shortness of breath (19%)
- Bone or joint pain (15%)
- Sore throat (14%)

Coronavirus is a lower respiratory tract infection which means most of the symptoms are felt in the chest and lungs.

RISK

The symptoms can be more severe in people with weakened immune systems such as older people and those with long term conditions such as diabetes or chronic lung diseases

- 80% of sufferers in China only had mild symptoms which were managed at home.
- 20% had more severe symptoms which includes trouble catching their breath and low oxygen in their blood. These needed to go to hospital.

EXPERIENCING SYMPTOMS?

- Stay at home for 7 days if you have a high temperature or a new, continuous, cough.
- **DO NOT** go to your GP's surgery, pharmacy or the hospital.
- Contact 111 and tell them what symptoms you have and that you are staying at home.

PREVENTION OF SPREAD

The infection is spread by being in close contact (within 2m or less) of an infected person.

Spread is possible by touching a surface or object that has been contaminated. The virus can live on surfaces for longer than 72 hours.

- Wash your hands for 20 seconds with soap and water. Do this often.
- Always wash your hands when you get home or go into work.
- Use hand sanitiser if available (must have at least 60% alcohol).
- Cover your mouth and nose with tissue or your sleeve when you cough or sneeze.
- Wash hands thoroughly after coughing or sneezing.
- Dispose of tissues immediately.
- Don't touch your eyes, nose or mouth if your hands are not clean.
- Avoid close contact with people (shaking hands or kissing).
- Use air dryers or paper towels in welfare areas, avoid re-useable towels.

AT WORK

- If working with the public, look for visual signs of the symptoms. If unsure, make your apologies and contact your Manager.
- Avoid unnecessary meetings or gatherings of large numbers of people in small spaces.
- Where possible, use your own tools and equipment.
- Don't share cups, bottles or drink etc.

INCUBATION

- The average time it takes people to get sick after being exposed is 5 days.
- Some may get sick quicker while others don't fall ill for 2 weeks.