



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% ± 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 Portland cement Sand (see notes) Aggregate SBR Water	50kg 125kg - 7LTR Up to 12ltr	50kg 125kg - 9LTR Up to 9ltr	50kg 75kg 75kg 3-6mm 6LTR Up to 12ltr	50kg 125kg - 9LTR Up to 9ltr	50kg 75kg 120kg 5-10mm 7LTR Up to 13.5ltr	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
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.

PRODUCT SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Manufacturer/Supplier: SBR Bonding Liquid
Company: Construction Chemicals (UK) Ltd
Units 1 & 2a Lazarus Court, Woodgate, Rothley Leics LE7 7NR

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 environmental: 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:	O°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 Protections (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.