



SB29 CEMENT WATERPROOFER

Samson SB29 is a synthetic liquid latex based admixture for cement mortars and concretes that greatly improves adhesion to many substrates including dense concrete, glass, steel, tiles. SB29 improves strength, flexibility and water/moisture resistance of plaster and mortar mixes.

Colours: White to Clear

PRODUCT USES

- Interior and exterior water resistant rendering.
- Damp-resistant layers
- Levelling floors prior to laying tiles, wood blocks etc.
- Water- Resistant adhesives for tiles, glass, steel etc.
- Water – Resistant additive for tile adhesives and groutings.
- Corrosion protection of steel reinforcing rods in concrete and steel structures.
- Waterproofing flat roofing and balconies.
- Patching and repairing concreted areas.
- Industrial flooring and screeding
- Flooring for areas where improved chemical resistance is required. eg dairies, factories.
- Lining of effluent ducts, canals, tunnels etc
- Screeds for bathrooms and showers.
- Nosing for stairs indoors/outdoors

ADVANTAGES

- Greatly improves adhesion to many substrates including dense concrete, glass, steel, tiles etc
- Imparts excellent resistance to water and water vapour.
- Thinner sections of mixes may be applied.
- Much improved flexibility.
- Resistance to frost is vastly improved.
- Reduced water / cement ratio for equivalent workability.
- Diminishing dusting
- Improves chemical resistance.

TECHNICAL DATA

- Pack size 1L, 5L and 20L Jerry Cans
- Viscosity ± 100 cps
- Density 1.0 g/l
- Toxicity Non Toxic
- Fire hazard None
- Shelf life 6-12 months (dependent on storage conditions)
- Storage Cool, dry area below 25°C

Properties listed above are for guidance only and not a guarantee on performance.

MIXING RATIOS:

- The gauging water can be partly or completely replaced by Samson SB29. The quantity recommended depends on the application and is normally from 9 – 18lts per 50kgs of cement
- Higher levels of latex addition are used for thin screeds where maximum performance is required.
- The colour of latex modified compositions is darker than that of ordinary compositions, if this is undesirable it can be remedied by including a portion of white cement.

AGGREGATE

Washed sharp sand, free from excessive fibres, should always be used in latex-modified cement mortars. Where a very smooth surface is required fine sand may be used, but it is important to ensure that there are no very fine clay-like particles present. Many types of aggregate have been successfully used in Samson SB29 modified compositions; typical examples are those conforming to the SABS 1090 - 1976 "Sand for plaster and mortar" as well as granite chippings used in heavy duty flooring.

WORKABILITY

The workability time is generally slightly increased by the addition of Samson SB29.

In cold weather conditions (ie below 10° C) especially when it is also damp, it is desirable to use rapid or extra-rapid hardening cement. Alternatively, ordinary Portland cement may be used in conjunction with 2% - 4% of calcium chloride (expressed on cement weight); the calcium chloride should be added as a 50% solution in water to the mortar mix.

ADDITIVES

Workability additives such as fly ash and lime are not necessary as Samson SB29 exerts a considerable plasticising effect of its own. Air entraining agents should not be used without adequate testing. The addition of an anti-foaming agent may sometimes be desirable.

CLEANING OF EQUIPMENT:

All tools should be cleaned immediately after use because hardened latex compositions have excellent adhesion and are therefore difficult to remove. If this is overlooked it can however be remedied with solvents such as white spirit or toluene.

APPLICATION OF SAMSON SB29**Wall Renderings****Preparation**

It is necessary to ensure that the wall surface is free from crumbly or other unsound areas. Dusty patches and old paint should also be removed. It is usually sufficient to prepare the wall with a wire brush. All surfaces should be dampened an hour or so before priming.

Priming

The application of a priming coat is normally recommended to obtain maximum adhesion of the subsequently applied rendering. The priming coat, consisting of 2 parts of ordinary Portland cement slurred with 1 part of Samson SB29, should be thoroughly brushed on to the prepared wall surface. **(The rendering is applied whilst the priming coat is still wet.)**

Mixing

A general purpose rendering compositions is as follows:

| | |
|---------------------------------|-----------------------------------|
| SABS 1090 - 1976 "plaster sand" | 100 kgs |
| Ordinary Portland cement * | 33 kgs |
| Samson SB29 | 6 litres |
| Water | as required to adjust consistency |

* see earlier remarks regarding the use of rapid hardening cements or calcium chloride in cold weather conditions.

NOTE: Although fine sand may be used, especially where a very smooth surface is required, it is essential that there should be no ultra-fine clay-like material present in the sand.

Mixing should preferably be carried out in a concrete mixer, although hand mixing is permissible where the total weight of the dry batch does not exceed 50kgs. The usual procedure is to quickly pre-mix the sand and cement in a mixer, pour in the Samson SB29, mix for 2-3 minutes and finally cautiously add water little by little until the required consistency is achieved over addition of water causes rapid thinning of latex modified mortars owing to the plasticising effect of the latex.

Application

The thickness of latex-modified renderings should be restricted to not more than approximately 6mm for each coat. Greater thickness tends to cause sagging or, in the case of soffits, actual fall off of the unset renderings. However, several coats may be applied in fairly rapid succession; it is sufficient to allow each coat time to set-off adequately to receive the subsequent coating. The time required between coats will vary according to conditions but is typically 15 - 30 minutes. A simple trowelling operation is usually sufficient to achieve a moderately smooth finish. If a smoother surface is required, the rendering should be floated using a clean steel or preferably wooden float after a suitable interval has elapsed. This interval is usually about 30 min to 1 hour, but is best found by experience.

Water Resistant Rendering

Where the main requirement of the rendering is improved water resistance, a modified application technique is recommended.

After preparing the substrate as described above, two sealing coats consisting of approximately two parts of Portland cement slurred with 1 part of Samson SB29 should be thoroughly brushed on to the surface. The second sealing coat may be applied as soon as the first coat is touch dry, ie after approximately 20 to 30 minutes. Ideally, the sealing coats should be applied at right angles across each other, thus ensuring complete coverage of the substrate.

It is emphasised that the thickness of each sealing coat should not exceed 1.6 mm otherwise crazing may occur. Before proceeding further, the double sealing coat system must dry out completely for a period of at least 48 hours.

After the sealing coats have dried thoroughly, a tack coat consisting of two parts Portland cement slurred with one part of Samson SB29 may be applied. The renderings may then be applied whilst the tack coat is still wet. The amount of Samson SB29 required in the rendering composition depends upon the degree of water resistance required and the conditions prevailing during application, but the addition of 14 litres of Samson SB29 per 50kgs of cement is usually satisfactory. Where high hydrostatic pressures are anticipated, the level of Samson SB29 normally recommended is 20 litres per 50kgs of cement. As the application of water-resistance rendering is a specialised procedure, we advise each customer to consult us for recommendations appropriate to his individual requirements.

Floor Screeds**Preparation**

Where the existing floor is old or dirty, it is essential to remove all contaminant such as oil, grease, paint etc to ensure adequate development of bond when the topping is applied. Any unsound crumbly concrete should also be removed. An efficient way of preparing an old floor is to use a mechanical scabblers to remove all unsound materials. If the concrete is in reasonably good order light scabbling will suffice, eg to a depth of about 2 - 4 mm. For new floors, to which for example a levelling screed needs to be laid, it may still be desirable to remove the upper surface to ensure that weak surface latence is not present. Light scabbling to a depth of up to 4mm will normally suffice. Alternatively good results can often be obtained by etching either new or old concrete floors with hydrochloric acid (1 part of concentrated acid diluted with 2 parts of water) followed by a thorough washing to remove all traces of acid. If screed bars are to be used to define thickness of the screed, these should be positioned after the above preparation.

Priming

The application of a priming coat is normally recommended to obtain maximum adhesion of the subsequently applied screed. The prepared floor should be thoroughly dampened with water, hosing is suggested, followed by removal of excess standing water. A priming coat, consisting of 2 parts of ordinary Portland cement slurred with 1 part of Samson SB29, would then be thoroughly brushed into the floor using a stiff broom. The topping is applied whilst the priming coat is still wet.

For general-purpose topping, the following composition is suggested:-

| | |
|--------------------------------|-----------------------------------|
| SABS 1090 - 1976 "mortar sand" | 100kgs |
| Ordinary Portland cement | 33kgs |
| Samson SB29 | 6 litres |
| Water | as required to adjust consistency |

The mixing procedure is straight forward, and is as described in the section dealing with wall renderings.

Application of topping

Screeds based on the above composition can be laid to any thickness, down to a featheredge if necessary, providing that a sufficiently fine grade of sand is used. However, it is essential that there should be no ultra fine clay-like material present in the sand.

Because Samson SB29 allows "feather-edging" of suitable mortar compositions, it is therefore possible to patch up only the damaged portions of existing concrete floors. These portions must, of course, be prepared and primed as previously described.

After mixing the Latex, mortar should be poured over the still wet priming coat and struck off. It may then be trowelled to the required finish. An experienced floor layer will readily achieve a finish of satisfactory smoothness without having to do any further trowelling. However, as an alternative procedure it is possible with care to carry out further trowelling after a suitable interval, when initial stiffening of the mortar has commenced. A clean steel trowel is recommended for this operation.

With a little experience, the correct timing at which this retrowelling should be carried out will be properly judged.

If insufficient time has been allowed to elapse, a thin surface skin will be present over soft unset material and the skin will be torn giving surface cracking. Too great a time interval on the other hand would result in the mortar having set too much to be smoothed. The whole surface should be trowelled, not just sections of it to avoid variations in shade, texture, etc.

Heavy duty flooring

Samson SB29 may be used with advantage in heavy duty flooring compositions. The procedure for preparing and priming the existing floor and for mixing and application is as described for general purpose floor screeds. Latex modified heavy-duty floorings are normally laid as 12 mm toppings. An exception to this is the iron aggregate flooring, which we recommended laying as a 6 mm topping.

A typical heavy-duty composition is as follows:-

| | |
|--------------------------------|-----------------------------------|
| Portland cement | 100 kgs |
| SABS 1090 - 1976 "mortar sand" | 125 kgs |
| 3mm granite chippings | 125 kgs |
| Samson SB29 | 18 litres |
| Water | as required to adjust consistency |

Disclaimer:

The knowledge herein is given in good faith and is to the best of our knowledge, but no warranty expressed, or implied, are made to the accuracy, reliability or completeness of the information. Witon Chemicals urges persons receiving this information to make their own determination as to the information's suitability and completeness for their particular application.

Technical details above are provided in good faith. We are an ISO 9001: 2008 registered company and our products are manufactured to the highest standards using raw materials of superior quality. Consequently we believe in the quality of our products and will willingly replace any product in the unlikely event of a quality related performance failure. Whilst we are confident in guaranteeing the quality of our products, we cannot however accept any liability for performance failure due to the incorrect application of our products. Correct application is critical to the successful performance of our products and as this process falls outside of our control we are unable to cover the application under our product performance warranty. Where there are doubts, it is recommended that the user conduct their own suitability tests before use.

Updated: January 2018 (this supersedes all previous publications)