

TEKPOL SBR

TEKPOL SBR can be used as an admixture to produce a polymer modified screed with improved strength and durability as well as quicker drying properties to receive floor finishes. TEKPOL SBR can also be used as a sealer / primer or with sand and cement as a slurry bonding agent.



OVERVIEW

TEKPOL SBR is a styrene-butadiene copolymer latex emulsion specially designed for use in traditional cementitious and wearing screeds.

The addition of TEKPOL SBR improves the durability, abrasion resistance, water resistance and physical strength of the screed.

It has a strong plasticising effect and improves workability and reduces drying times. It can also be used as a sealer coat and bonding primer.

TECHNICAL DATA

Packaging	25L container
Appearance	Low viscosity, white liquid
pH	>9
Specific gravity	1
Dosage rate (screed)	20-30% by weight of OPC
Coverage (sealer)	0.1kg TEKPOL SBR per m ²
Coverage (slurry)	0.15kg TEKPOL SBR per m ²
Fully compacted dry screed density	1950-2300 kg/m ³
Light foot traffic	24 hours
Full traffic	7 days
Drying time (in good drying conditions)	7 days per 25mm

WARNING

Whilst the information provided in this datasheet is true and accurate to the best of our knowledge, it may contain information which is unsuitable under certain circumstances since materials, site conditions and method of application vary with each application.

TEKCEM LTD cannot be held responsible for any loss or damage due to incorrect use or from the possibility of variations in working conditions and/or workmanship beyond our control. The user alone is responsible for any consequences deriving from the product.

BENEFITS

- Allows installation of thin section screeds
- Improved workability
- Improved resistance to water and water vapour (reduced permeability)
- Lower shrinkage
- Improved physical strength (compressive, flexural and tensile)
- Improved surface durability
- Reduced surface dusting.

COVERAGE

Screed Type	Composition			Dosage of SBR	Approx. yield
	OPC	Screeding Sand	Granite 3-6mm		
Traditional	100kg	500kg		20L	0.3m ²
Water resistant	100kg	400kg		30L	0.25m ²
Heavy duty wearing	100kg	300kg	100kg	30L	0.25m ²

The screeding sand should be a good quality 0/8mm (MP) fines category 1 or 0/4mm (MP) fines category 1, fine aggregate to BS EN 13139. OPC to strength class 42,5 or above, BS EN 197-1.

SCREED SYSTEMS

TEKPOL SBR is designed for use in traditional cementitious and wearing screeds. As a screed admixture a dosage of 20% by weight of OPC is normally adequate. Where improved durability, water and/or chemical resistance is required then the dosage should be increased to 30% by weight of OPC.

It is recommended that wearing screeds, particularly if heavily trafficked, are laid bonded wherever possible. Bonded screeds should be laid at thicknesses of 10-40mm, 20-40mm for heavy duty applications. Unbonded screeds should be applied over a suitable damp proof or separating membrane at a minimum thickness of 50mm.

Floating screeds should use a suitable membrane to separate the screed from the underlying insulation and should be at a minimum 75mm thick (65mm for domestic). Thicknesses can be reduced to 55mm over rigid insulation board.

Partially bonded screeds with no separating membrane or bonding agent used often result in cracking and should be avoided.

All unbonded and floating screeds are to be reinforced and may be reinforced with PP fibres.

TOOLS REQUIRED

Screed:

- Forced action mixer
- Screed bar
- Plastic float
- Steel float

Sealer and bonding slurry:

- Mixing bucket
- Stirring rod
- Soft brush for sealer coat
- Stiff brush for bonding slurry

Wash all tools thoroughly with water directly after use.

SURFACE PREPARATION

Before starting, all substrates must be sound, clean and dry. Substrates should be prepared as for sand/cement screeds.

They should be reasonably flat and true as sudden level changes in the substrate may lead to sudden changes in screed thickness and could induce cracking.

For bonded screeds, mechanically remove all laitance, dust, dirt, oil, grease and other contaminants that may affect adhesion. Heavily contaminated floors may require special treatment, please seek specific technical advice. Sub-floors directly to earth must have a DPM. If there is no DPM present or the surface relative humidity is above 75% RH the application of a combined DPM and bonding agent directly beneath the TEKPOL SBR modified screed will facilitate the rapid installation of floor finishes.

SUBSTRATES

Concrete/screed:

The strength of the substrate should be compatible with the stresses associated with application and hardening of the levelling or wearing screed. For bonded construction it is preferable that the compressive strength of the substrate is a minimum of 25Mpa. Additionally for bonded screeds, it is necessary to apply a sealer coat and then prime the substrate with a slurry bonding coat prior to the application of the screed.

MIXING

The TEKPOL SBR modified screed should be mixed in a forced action mixer. Pre-mix suitable fine aggregate and portland cement, pour in the requisite amount of TEKPOL SBR. Slowly add water to give the required consistency. Mix thoroughly for 1-3 mins. The mixing time should be minimised to limit the degree of air entrainment. At higher dosages of TEKPOL SBR, the extra water addition is very low and the use of wet aggregate may result in excessive workability. Screed pumps are not generally suitable for this type of material.

The mix has a working life of approximately 20-30 minutes and batch sizes should be calculated accordingly. Sealer and bonding slurry coats can be mixed in a mixing bucket with a stirring rod.

APPLICATION

For bonded construction, apply a sealer coat consisting of 1 part water to 1 part neat TEKPOL SBR by soft brush or roller and brush/roll out well to avoid any ponding.

Then apply a slurry bonding coat consisting of 1 part OPC and 1 part fine sand mixed with undiluted TEKPOL SBR into a smooth paste. This is applied evenly using a stiff brush immediately after mixing. The slurry bonding coat must not be allowed to dry out before working in the TEKPOL SBR modified screed. The applied screed is consolidated and levelled by tamping with a screed bar and rubbing with a plastic float. A smooth finish is achieved by light trowelling with a steel trowel.

The screed should be laid at a maximum depth of 40mm. If greater depths are required, this may be carried out by building up in layers with the surface of the intermediate layer being scratch - keyed before applying the second screed layer. Each layer is to be compacted separately and applied within 45 minutes to ensure a monolithic total thickness. TEKPOL SBR modified screed should be cured, ideally under polythene, as soon as practicable after application for 1 - 3 days, after which drying should be allowed to occur naturally. The screed should not be force dried or exposed to severe drying conditions.

LIMITATIONS

The application of TEKPOL SBR modified screeds, sealer and slurry bonding coats should only be carried out when the floor temperature is 5 - 30°C and the ambient relative humidity is below 75%. These conditions should be maintained during application and drying. Consideration should be given to the isolation of walls and columns or similar and to the forming/cutting.

HEALTH & SAFETY

This product is not classified under the Chemicals Hazard Information and Packaging for Supply Regulations. A Material Safety Data Sheet relating to this product can be obtained from TEKCEM LTD. Please dispose of packaging and waste responsibly.

STORAGE & SHELF LIFE

Six months in unopened bags and stored under good, cool and dry conditions.