

SBR POLYMER

Rok Bond SBR for Screeds

ADMIXTURE FOR THIN BONDED, UNBONDED & FLOATING SCREEDS

Features

- High Strength
- Will accept foot traffic after 24 hours
- Rapid drying, can receive floor coverings after 10 days @ 50mm thick
- Excellent wear resistance
- Bonded screeds from 10mm, unbonded and floating from 35mm minimum thickness
- Improved compressive, flexural and tensile strength
- Excellent resistance to passage of water and water vapour.
- Suitable for screed pumps

Description

Rok Bond SBR screeds are site batched screeding mortars and fine concretes.

The mix design for each screed mortar is **Rok Bond SBR**, cement, medium grade sharp sand aggregate as appropriate for the mix design, plus water. The components are measured by weight or by volume on site and mixed to form the screed.

The screeds are bonded with a primer of **Rok Bond SBR** and cement which achieves monolithic adhesion to correctly prepared concrete or screeds.

Rok Bond SBR screeds can be applied from 10mm bonded or 35mm unbonded or floating and are water resistant. Granolithic bonded screeds are suitable for industrial use as a finish. Bonded screeds are suitable for industrial environments as an underlay to receive further industrial grade toppings. Unbonded and floating screeds are suitable for commercial and domestic use as an underlay for all commercial and domestic floor finishes, in some instances a smoothing screed may be required.

Uses

Rok Bond Mix 1	Screed or screeds repair from 6-50mm
Rok Bond Mix 1a	Screed or screeds repair from 25mm
Rok Bond Mix 2	Granolithic Toppings or repair from 15-25mm
Rok Bond Mix 2a	Granolithic Toppings or repair from 25mm
Rok Bond Mix 3	Floating screed from 35mm
Rok Bond Mix 4	Fine concrete screed from 26mm

Rok Bond SBR Mix 1

Design and Physical Properties

Cement	50kg
Medium sharp sand	125kg
Rok Bond SBR	9 litres
Water	up to 9 litres
Yield per mix	0.1 m3 (approx.)

Theoretical Compressive Strength

1 day	35 N/mm ²
7 days	50 N/mm ²
28 days	62 N/mm ²

Theoretical Tensile Strength

7 days	4.6 N/mm ²
28 days	6.8 N/mm ²

Theoretical Flexural Strength

7 days	12.5 N/mm ²
28 days	15.5 N/mm ²

Rok Bond SBR Mix 1a

Design and Physical Properties

Cement	50kg
Medium sharp sand	150kg
Rok Bond SBR	4.5 litres
Water	up to 14 litres
Yield per mix	0.1 m3 (approx.)

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Theoretical Compressive Strength

1 day	15 N/mm ²
7 days	30 N/mm ²
28 days	42 N/mm ²

Theoretical Tensile Strength

7 days	3.0 N/mm ²
28 days	4.1 N/mm ²

Theoretical Flexural Strength

7 days	7.2 N/mm ²
28 days	9.0 N/mm ²

Rok Bond SBR Mix 2

Design and Physical Properties

Cement	50kg
Medium sharp sand	75kg
3-6mm Granite chippings	75kg
Rok Bond SBR	9 litres
Water	up to 9 litres
Yield per mix	0.1 m ³ (approx.)

Theoretical Compressive Strength

1 day	31 N/mm ²
7 days	52 N/mm ²
28 days	62 N/mm ²

Theoretical Tensile Strength

7 days	5.2 N/mm ²
28 days	6.2 N/mm ²

Theoretical Flexural Strength

7 days	9.2 N/mm ²
28 days	10.5 N/mm ²

Rok Bond SBR Mix 2a

Design and Physical Properties

Cement	50kg
Medium sharp sand	75kg
6-10mm Granite chippings	75kg
Rok Bond SBR	4.5 litres
Water	up to 14 litres
Yield per mix	0.1 m ³ (approx.)

Theoretical Compressive Strength

1 day	14 N/mm ²
7 days	32 N/mm ²
28 days	42 N/mm ²

Rok Bond SBR Mix 3

Design and Physical Properties

Cement	50kg
Medium sharp sand	150kg
Rok Bond SBR	4.5 litres
Water	up to 13.5 litres
Yield per mix	0.1 m ³ (approx.)

Theoretical Compressive Strength

1 day	14 N/mm ²
7 days	32 N/mm ²
28 days	42 N/mm ²

Theoretical Tensile Strength

7 days	3.0 N/mm ²
28 days	4.0 N/mm ²

Theoretical Flexural Strength

7 days	7.1 N/mm ²
28 days	8.9 N/mm ²

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Rok Bond SBR Mix 4

Design and Physical Properties

Cement	50kg
Medium sharp sand	100kg
5-10mm Pea shingle	100kg
Rok Bond SBR	4.5 litres
Water	up to 14 litres
Yield per mix	0.14 m3 (approx.)

Theoretical Compressive Strength

1 day	20 N/mm ²
7 days	41 N/mm ²
28 days	50 N/mm ²

Note that all quoted data is based on tests conducted in house at 20°C by casting 100mm cubes that are air cured. Results shown are typical strengths achieved by casting and curing cubes in laboratory conditions; site strength may be lower. Water addition is variable according to the water content of the aggregate.

Instructions for Use

Preparation

- The object of surface preparation is to highlight areas of weakness that may need additional repair and to provide a clean, absorbent, suitably textured surface. New concrete and screed should be at least 28 days old and incorporate a fully functioning damp proof membrane. Surfaces must be free of all contaminants and the dense surface laitance removed.
- All contamination, oil, grease and fats should be removed using proprietary degreaser or detergent as appropriate and the surface allowed to dry prior to further treatment. All construction contaminants such as plaster, fillers and paint must also be removed.
- Laitance should be removed together with minor surface contamination by vacuum assisted planning, scabbling or shotblasting equipment. Any weak or friable material exposed during the preparation process should be removed.
- Day joints and cracks in screeds and concrete must be assessed as to their impact on the final finish. If necessary day joints and cracks should be repaired and reinforced to reduce the risk of future minor movement causing cracking of the surface finish.
- Immediately prior to the material application, all dust must be removed from the prepared surface using industrial vacuuming equipment.

Hydrating

- The prepared surfaces must be thoroughly hydrated using clean water. Very porous surfaces may require soaking for up to 24 hours. All surplus water must be removed before the primer is applied.

Priming

- Apply a priming coat of Rok Bond SBR and OPC mixed 1:1 by volume to the damp surface immediately before applying the screed, at the rate of 3-4m² approximately per litre of Rok Bond SBR. Mix the primer thoroughly using a slow speed electric mixer and apply evenly over the surface ensuring total and uniform coverage, taking care to avoid ponding. Only prime an area of floor which can be covered by the mortar within the working time of the primer.

Note: that the primer must not be allowed to dry. If it dries it must be abraded and reapplied.

Mixing

- **Rok Bond SBR** screeds should be mixed using a forced action mixer (e.g. Creteangle or Screedmaster) to provide optimum performance; free fall mixers are not recommended. Depending on the moisture content of sands and aggregates it may not be necessary to add the full amount of water specified in the mix design. When using an efficient mixer, a mixing time of 2-3 minutes is normally sufficient. Do not over mix as this will entrain air and may affect performance. The consistency of the screed must not be semi-dry, good compaction cannot be achieved with a semi-dry mix.
- To test for correct consistency, make a ball of the mixed material. If the ball can be pulled apart without crumbling, the mortar will contain sufficient gauging liquid to fully hydrate the cement and allow proper compaction. Once mixed the mortar should be used as quickly as possible.

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Placing

- As soon as the mortar is mixed, it should be placed onto the wet primer, compacted, ruled and closed with a float or trowel. Avoid overworking the surfaces as this will increase the tackiness of the mortar. The float should be regularly washed to prevent buildup of paste. Rok Bond SBR granolithic screeds may need to be polished and finished by final troweling after placing.
- Screeds and topping with an overall thickness greater than the maximum depth per layer, 50mm approximately, must be placed monolithically (wet on wet) in more than one layer to ensure correct compaction. Each layer should be of equal thickness and of the same mix design. To ensure satisfactory adhesion, the lower layer(s) should be lightly combed, raked or roughened to provide a key for the next layer. Should intermediate layers dry, a priming coat must be applied between layers.
- Joints should be formed in the floor screed/topping in line with expansion/contraction and movement joints and on suspended floors over support positions to accommodate movement. Isolation joints should also be placed around the perimeter of floor slabs and around columns, manholes and fixed bases. Joints should also be formed between any hot and cold areas of the floor. The further information refer to BS8204-3.

Curing

- As soon as possible after final troweling, cure with **Rok Seal CM** Curing Membrane. Alternatively use tight fitting polythene and leave in place for at least 24 hours to prevent rapid moisture loss resulting in potential surface cracking and crazing. Take care not to damage the surface. The use of **Rok Seal CM** is preferred because curing may commence immediately after troweling is complete.

Opening to Traffic

Rok Bond SBR screeds, toppings and repairs can receive foot traffic after 24 hours and heavy traffic after 72 hours (typically at 25°C). This time will vary according to temperature, water content of applied material and humidity.

Overlaying

The time at which a **Rok Bond SBR** floor can be overlaid is dependent on residual moisture content. Testing for relative humidity (RH) at the surface is an accepted non-destructive means of determining residual moisture content. Typically, a Rok Bond SBR screed will achieve 75% RH after 10 days air curing at 50mm thickness and 48 hours at 12mm. Measure RH with a correctly calibrated hygrometer.

Water Temperatures

Rok Floor SBR screeds can be used in most weather conditions and in a wide temperature range, typically from +5°C to 35°C. Note that at high ambient temperatures the working time of the mix will be reduced; it will be increased at lower temperatures. Materials should ideally be stored between 10°C and 30°C before use.

Shelf Life and Storage

Rok Bond SBR should be stored unopened between 5°C and 25°C in a dry warehouse conditions and out of direct sunlight. In these conditions shelf life is approximately 6 months.

Health and Safety

The mix designs contain cement. Protective clothing, such as goggles, masks, overalls and barrier cream/gloves is recommended to prevent any effect from prolonged skin contact, inhaling or ingestion.

In the event of skin contact, wash with soap and water. Seek medical advice if irritation or pain occurs. In the event of eye contact, irrigate with plenty of clean water and seek immediate medical advice. In the event of ingestion, do not induce vomiting. Seek immediate medical advice.

Site Attendance

When on site, Pidilite representatives are able if asked, to give a general indication of the correct method of installing a Pidilite product. It is important to note that Pidilite is a manufacturer and not an application contractor. It is therefore the responsibility of the contractor and his employer to ensure correct practices and procedures are implemented to provide a satisfactory installation of the product. Liability for correct installation lies with the contractor and not with Pidilite.