



# KUT POLYFIX SBR

## General Purpose SBR

BTA – 04 - 0104

### DESCRIPTION

**KUT POLYFIX - SBR** is a water resistant low viscosity SBR latex emulsion modified with auxiliary agents and is used to improve the water and chemical resistance of cementitious mixes made at the local job sites.

### USES

- **KUT POLYFIX - SBR** is recommended for indoor as well as outdoor applications and for wet areas such as toilets, bathrooms etc.
- It is used for preparing tile grouts, toppings, plaster and bonding slurries, grout joints, thick mortar beds for tiles, bricks, stone, ceramics and marble, general reconstruction work, polymer concrete overlays for highways and bridges, patching and repair of precast concrete elements and concrete pipe.
- **KUT POLYFIX - SBR** is used for the production of cementitious polymer flooring and is also recommended as supplied for dust proofing of floors.
- It is used in preparing thick bed tiling mortar.

### ADVANTAGES

- Liquid polymer ready to use as supplied.
- Increases the bond strength of normal portland cement mortars.
- Reduces cracking through increased mortar flexibility.
- Increases wear resistance against high frequency traffic.
- Seals voids in grout joints to resist staining.
- Locks in and can preserve colour pigments from bleaching, fading or washing out.
- Physical and thermal shock resistant mixes.
- Non flammable / Non toxic.
- Chemical and water resistant.

### TYPICAL PROPERTIES

- **Mechanical characteristics** : Typical improvements in mechanical properties of a 3 : 1 sand / cement mortar using **KUT POLYFIX - SBR** on a cement level

		Control	KUT POLYFIX SBR
Compressive Strength (N/mm <sup>2</sup> )	Dry	28.5	32.0
	Wet	23.0	24.0
Tensile Strength (N/mm <sup>2</sup> )	Dry	3.5	4.5
	Wet	2.5	3.0
Flexural Strength	Dry	7.0	9.0
	Wet	6.0	8.0
Drying Shrinkage (%)		0.07	0.02
Adhesion to Concrete			
- Slant Shear Bond (N/mm <sup>2</sup> )		2.6	20.0

- **Chemical resistance** : Cementitious based materials have limited chemical resistance. The addition of **KUT POLYFIX - SBR** to cements mortars reduces permeability and therefore helps reduce the rate of attack by aggressive chemicals.
- **Water vapour permeability** : Less than 4 gm/m<sup>2</sup> / 24 hours through a 10 mm thick test piece at 20 % modification.
- **Coefficient of thermal expansion** :
  - - 20° C + 20° C : 12.8 x 10<sup>-6</sup>
  - + 20° C + 60° C : 12.9 x 10<sup>-6</sup>
- **Resistance to water under pressure -- 30 m head** : Excellent - No water penetration through a 15 mm thick test piece.



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## SURFACE PREPARATION

### Application

Immediately before priming, the concrete substrate should be thoroughly dampened with water with any excess being brushed off. All surfaces must be primed by thoroughly scrubbing in the slurry coat of 1 volume **KUT POLYFIX - SBR** to 3 volumes fresh cement. In order to obtain a smooth consistency, the cement should be blended slowly into the liquid. Stir frequently during use to offset settlement. 17 kg. of **KUT POLYFIX - SBR** mixed with 50 kg. cement will cover 32 to 38 m<sup>2</sup> / coat dependent on substrate texture and thickness applied. Avoid "puddling" of the slurry coat. the topping must be applied into the wet slurry. If the slurry dries out, it must be removed and the clean substrate reprimed.

### A typical mix design for :

#### (i) Patching and repair mortar or a render

Cement - 50 kg.  
Grade C/N sharp sand - 150 kg.  
**KUT POLYFIX - SBR** - 20 kg.  
Water - To adjust to desired consistency

#### (ii) For heavy duty floor screeds, replace half the sand with local aggregates <sup>3</sup>/<sub>16</sub>" (5 mm). Use a semi dry cohesive consistency at a thickness of 10 to 25 mm.

#### (iii) For bonding of slip bricks, tiles etc.

Cement - 50 kg.  
Grade C/N sharp sand - 125 kg.  
**KUT POLYFIX - SBR** - 20 kg.  
Water is used to adjust to a fine mortar consistency.  
Recommended thickness is 6 to 40 mm

## GENERAL INSTRUCTIONS

Always prepare surface thoroughly. Toe in all edges wherever possible to avoid feather edging. All surface including edge must be primed. All application should be wet on wet, the primer must be allowed to dry.

The water content should be kept to the minimum necessary. In order to prevent rapid drying, mortars should be properly cured as per standard curing procedure of concrete. Minimum application temperature is 5° C. do not retemper mortar or prime after initial set.

## PACKAGING

**KUT POLYFIX SBR** is available in 5, 20 and 200 kg. containers.

## PRECAUTIONS

**Cleaning** : All equipment must be cleaned with water immediately after use. Mixes containing this product must not be emptied into drainage systems.

**Storage** : Shelf life 12 months when stored in dry conditions at moderate temperature and humidity. Protect the product from frost.

**Fire resistance** : The product is not flammable.

## PERFORMANCE STANDARDS

**KUT POLYFIX - SBR** conforms with the performance requirements of **ANSI A118.4** and **ASTM C - 1059.86** - Standard specification for Latex agents for bonding fresh to hardened concrete Type II.

## HEALTH & SAFETY

**KUT POLYFIX - SBR** is non toxic but it is mildly alkaline. Gloves should be worn during application. splashes to the skin or eyes should be removed with clean water. In the event of prolonged irritation, seek medical advice.

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