

# ReArm SBR 45

(Formerly known as MYK Bond SBR 45)

Cement Mortar and screed modifier cum bonding agent



## TECHNICAL DATA SHEET

### Product Description

ReArm SBR 45 is a modified Styrene butadiene Rubber emulsion specially designed for use as a mortar modifier for cementitious systems and a bonding aid. It is suitable as an admixture for obtaining waterproof concrete, plasters and mortars. It is also suitable for preparation of repair mortars damaged and spalled concrete.

#### Uses

- Concrete repair and adhesive Mortar, screed
- Modifying and improving bonding of floor toppings
- Repair of Worn Damaged and spalled concrete
- Repair of large cracks
- Polymer modified Floor screeds
- Rendering smooth good finish water tight external plaster.
- Thin layer patching mortars
- Tile fixing mortars, Masonry Mortars

#### Features and Benefits

- Simple use & thin application is possible
- Single component,
- Provide excellent bond to concrete, adhesion plaster, masonry, stone work, etc.
- Weather resistant helps improved durability
- Impermeability to chloride and other harmful agents
- Provides water tight screeds, plasters
- Improves tensile, adhesion and flexural properties
- Compatible with all hydraulic cements
- Economical to use.
- Improves cohesion and workability
- High resistance to freeze/thaw cycling

### Application Methodology

#### Step no 1: Surface Preparation

The base must be clean and free from loose particles. Unsound areas should be removed until sound concrete is located. Any cracks, pot holes etc. should be properly sealed and cured. The surface to be treated should be free from all coatings dust and unsound concrete toppings. The unsound parts should be chipped off to arrive at sound surface.

Smooth substrates must be mechanically roughened/ abraded e.g. by scrubbing, needle gun or grit blasting to provide an adequate key. Corroded reinforcing steel should be exposed around its full circumference and cleaned to remove all loose scale and corrosion deposits. It is always preferably to clean the steel to a bright condition. Use of emery cloth, grit or sand blasting, or ReArm Rust Remover / ReArm Rust Converter is recommended.

#### Step no 2: Substrate priming

The substrate should be thoroughly soaked with clean water and any excess removed prior to commencement. A slurry primer should be prepared consisting of 1 volume ReArm SBR 45 to 1 volume clean water to 3 volumes fresh cement. To obtain a smooth consistency, the cement should be blended slowly into the premixed liquids. The slurry primer should be stirred frequently during use to offset settlement.

The slurry primer should be scrubbed well into the surface of the concrete. Avoid applying too thickly and avoid 'puddling'. The repair mortar, topping or render must be applied on to the wet slurry primer. If the slurry primer dries before application of the mortar, it must be removed (ground off) and the area reprimed before continuing.

In exceptional circumstances, e.g. where a substrate/repair barrier is required or where the substrate is likely to remain permanently damp, FloArm Primer EP bonding aid should be used. Contact MYKA for further information.

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### Step no 3: Application Information

#### Recommended Dosage

Application Area	Mixing Ratio	Consumption of ReArm SBR 45 at recommended dilutions
Waterproofing	ReArm SBR 45 : Water : Cement 1:4:8	0.075 kg/m <sup>2</sup> per coat. Two coats recommended. (1kg of diluted ReArm SBR 45 covers ~ 6-8m <sup>2</sup> in two coats depending on the substrate)
Bonding Agent	ReArm SBR 45 : Water : Cement 1:4:6	0.05 kg/m <sup>2</sup> per coat.
Repair Mortar	ReArm SBR 45 : Water : Cement : Sand 1: 4:10:40	0.035 kg/sqm/mm thickness at Water: Powder ratio of 0.5 ( ½ inch mortar requires approx 0.44 kg diluted ReArm SBR 45
Crack Fill	ReArm SBR 45 : Water 1:4	0.015 kg/sqm/mm thickness at Water: Powder ratio of 0.5
Repair Concrete & Screed	ReArm SBR 45 : Water 1:4	10-15% by weight of Cement at Water : Powder ratio of 0.5
Injection Grout	ReArm SBR 45 : Water 1:6	3-6 kg per bag of cement.

### Step no 4: Application Instructions

#### Mixing:

ReArm SBR 45 is to be added to cement/ cement mortar/concrete/grout depending on the type of application as per the table above. Mixing of diluted ReArm SBR 45 to cement mortar should preferably be done manually by volume as per the table. Please note that when a Waterproofing Slurry or Bonding Coat is to be prepared Cement is to be added in the Polymer for getting consistent mixture.

#### Application Method / Tools

##### Water proof Coating:

Prepare the base as indicated in the above table. Spread cement primer by using ReArm SBR 45 : Water = 1: 4 by volume in order to obtain a thin layer. When the primer coat is still fresh and sticky, apply mortar made out of ReArm SBR 45: Water = 1: 4 by volume and finish with a trowel / brush. During application the mixture of ReArm SBR 45 and cement needs to be continuously stirred to prevent the cement particles from settling. Prepared material must be used within 20- 30 minutes depending upon temperature humidity etc. When used as water- proofing slurry coating minimum two coats is recommended. To be protected by screed on top for longer life. Standard coating system can be further reinforced by placing Glass fiber fabric layer in between 1st and the 2nd coat.

##### Bonding agent:

Prepare the bond coat as indicated in the above table. Apply the single coat of bonding agent to obtain a thin layer. When the bond coat is still fresh and sticky, apply the mortar or concrete.

#### Masonry Jointing:

Prepare the base as indicated above. Make a firm mortar with fine sand using ReArm SBR 45: Water = 1: 6-8. Impregnate the area with primer coat as above. While the primer is still wet, apply the mortar and immediately finish or reshape the surface as required

#### Polymer Mortar:

Dilute ReArm SBR 45 with water in the proportion of 1: 6 by volume. Prepare the mortar with this gauging water. Cured plaster with ReArm SBR 45 would harden faster and would be watertight. This type of polymer mortar should be used for all repair jobs for optimum performance.

#### Bonding Successive Concrete Casts:

Wash the surface with high pressure jet. Prepare a pasty mortar with ReArm SBR 45: Water = 1: 4 by volume. Apply this mortar onto the surface in a layer of 20-30 mm thickness. Pour fresh concrete after about an hour. When used as a bonding agent between subsequent layers of plaster the same procedure is to be adopted.

#### Polymer Modified Cement Grout for Injection:

Open the crack lines into V or U groove and fix galvanised iron nozzles spaced at regular intervals of 0.5 to 1.5 mm c/c along groove length with ReArm TBA 2540. Prepare a cement grout slurry admixed with ReArm SBR 45 at a dilution rate of 1: 6-8 by volume with water. Inject the fluid as per normal practice.

#### Render:

20kgs GP Cement + 60kgs grade 16/30 sharp sand + 2.5 litres ReArm SBR 45+ 2.5 litres (approximately) clean water. Yield 37 litres. The render should be of a semi-dry cohesive consistency. Recommended thickness: 6mm - 9mm

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### Technical Data

Base	Modified SBR emulsion
Color	Milky White
Specific Gravity	Approx. 1.02 gm/cc

### Properties:

Typical mechanical properties of 1: 3 cement sand mortar at W/C - 0.45 for control and W/C - 0.35 for mortar containing ReArm SBR 45 (10liters / 50 kg cement). Tested in accordance with BS 6319 & wet cured.

Mechanical Property	Days	Control	ReArm SBR 45
Compressive Strength in N/mm <sup>2</sup>	3 Days	11.5	12.5
	7 Days	13	14.5
	28 Days	20	22
Tensile Strength N/mm <sup>2</sup>	28 Days	2.5	3.2
Flexural Strength N/mm <sup>2</sup>	28 Days	4	5

**Note:** Increased dosages of ReArm SBR 45 and with further water reduction leads to improved mechanical properties.

### Chemical resistance:

Cementitious materials have limited chemical resistance. The addition of ReArm SBR 45 to cement mortars reduces permeability and therefore helps reduce the rate of attack by aggressive chemicals, acid gases and water.

### Finishing:

ReArm SBR 45 mortars can be finished with a steel, plastic or wood float, or by a damp sponge technique, to achieve the desired surface texture. The completed surface should not be overworked.

### Low temperature working:

In cold conditions down to 5°C, the use of warm water (up to 30°C) is advisable to accelerate strength development. Normal precautions for winter working with cementitious materials should then be adopted.

### High temperature working:

At ambient temperatures above 35°C, the material should be stored in the shade and cool water used for mixing.

### Curing:

ReArm SBR 45 mortars, toppings and renders are cement based. In common with all cementitious materials, they must be cured immediately after finishing in accordance with good concrete practice. The use of one of MYKA Armix Cure WB curing compounds, sprayed on to the surface of the finished mortar in a continuous film, is recommended. In harsh drying conditions, supplementary curing with polythene sheeting must be used.

### Cleaning:

ReArm SBR 45 should be removed from tools, equipment and mixers with clean water immediately after use. Cured material can only be removed mechanically.

### Limitations:

ReArm SBR 45 mortars, toppings and renders should not be applied when the temperature is 5°C and falling. Neither should they be exposed to moving water during application. Exposure to heavy rainfall prior to the final set may result in surface scour. If any doubts arise concerning temperature or substrate conditions, consult MYKA.

## Repair & Restoration

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### Packaging

Available in 5 Ltr, 20 Ltr and 200 ltr packing.

### Storage and Shelf Life

12 months if sealed packing and if stored in cool dry place in shaded area.

### Health & Safety

ReArm SBR 45 should not come in contact with skin and eyes or be swallowed. Protective gloves and goggles



### Product Categories Available



### Legal Note

The information, and, in particular, the recommendations relating to the application and end-use of MYK Arment products, are given in good faith based on MYK Arment current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with MYK Arment's recommendations. In practice, the difference in materials, substrates and actual site conditions are such that no warranty in respect of merchant ability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application & purpose. MYK Arment reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request.

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