

# PRODUCT DATA SHEET

## Sika® Emulsion-93

### WATERPROOF BONDING AGENT AND MORTAR IMPROVER

#### DESCRIPTION

Sika® Emulsion-93 is a new technology, waterproof dispersion that has been developed to perform as a general purpose bonding agent and mortar improver for cement based plasters and mortars.

#### USES

Sika® Emulsion-93 is a general purpose bonding agent and mortar improver for use in mortars and plasters where greatly improved in-service performance and durability characteristics are required. Handling characteristics are also significantly improved. Typical applications would be:

- To make a waterproof bonding slurry/adhesive for patching mortars, plaster screeds and renders
- For addition to mortars and plasters when improvements to properties such as durability, watertightness, chemical resistance and abrasion resistance are required: e.g. plaster screeds and floor toppings, patching, rebuild and rendering mortars
- Can be used to make tile bedding and adhesive mortars with excellent performance properties
- Concrete containing Sika® Emulsion-93 can be used to produce industrial floor slabs and toppings with high wear resistance and durability.

#### CHARACTERISTICS / ADVANTAGES

Sika® Emulsion-93 combines with the plaster or mortar to enable the following benefits to be achieved:

- Excellent adhesion of the plaster or mortar will be provided to most mineral based substrates
- Improved workability and non sag properties for easier application, particularly in vertical and overhead applications
- Significant reduction in bleed water
- Increased strength and durability
- Reduction in shrinkage of plaster and mortar work
- Outstanding waterproofing properties making mortar and plaster highly resistant to sea water, chemical attack, carbonation and frost
- Increases surface hardness and significantly reduces the problem of surface dusting on floor screeds and toppings
- Unlike P.V.A based products Sika® Emulsion-93 is not affected by continuous immersion in water (once hardened). It is equally suitable for use indoors, outdoors and under water.
- Sika® Emulsion-93 will enable a tighter, more dense and more uniform surface finish to be achieved on mortars, toppings and renderings

#### PRODUCT INFORMATION

<b>Chemical Base</b>	Polymer dispersion
<b>Packaging</b>	5 litres and 20 litres
<b>Appearance / Colour</b>	Whitish, homogeneous liquid
<b>Shelf Life</b>	In unopened original container: 12 months from date of production
<b>Storage Conditions</b>	Storage temperature between +5 °C and +35 °C. Protected from direct sunlight and frost.
<b>Density</b>	~ 1.00 kg/l (+20 °C)

## APPLICATION INFORMATION

### Recommended Dosage

#### Bonding slurry

Gauging liquid:	1 part by volume Sika® Emulsion-93 + 1 part by volume water
Slurry:	1 part by volume cement + 1 part by volume sand + gauging liquid, mix to slurry consistency
Consumption:	~ 0.25 kg Sika® Emulsion-93 for 1 litre of ready to use slurry (~ 2 m <sup>2</sup> )

#### Topping on monolithic slab

Consumption normally:	40 - 60 kg Sika® Emulsion-93 per m <sup>3</sup> ready to use mix (cement content 400 - 500 kg/m <sup>3</sup> )
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#### Levelling, patching and fixing mortar

Gauging liquid:	1 part by volume Sika® Emulsion-93 + 1 - 2 parts by volume water
Mortar:	1 part by volume cement + 3 - 5 parts by volume sand + gauging liquid, mix well until desired consistency

#### Mortar, fine concrete template

Consumption normally:	30 - 60 kg Sika® Emulsion-93 per m <sup>3</sup> ready for use mortar
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### Ambient Air Temperature

> +5 °C - < +35 °C

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

- All surfaces must be clean and free from standing water and all loosely adhering particles or any surface contaminants such as dirt, oil, dust, grease, etc.
- All cement laitance should be removed by scabbling, sandblasting, etc.
- Dry concrete substrates shall be saturated with water for some time, and the surface allowed to dry (to achieve what is referred to as a 'saturated surface dry' condition) before application commences.

### MIXING

- Mix together a measured amount of Sika® Emulsion-93 and water to suit the required application. Stir until well dispersed.
- When diluting Sika® Emulsion-93 to the desired ratio, consideration should always be given to the amount of water already present in the sand.
- Once the liquid has been mixed, slowly add the pre-blended dry sand/cement while stirring continuously with a Sika Jiffy mixer attached to a slow speed (500 rpm) electric drill. Mix until a uniform and lump free consistency has been achieved. The ratio of components in each mix will vary according to the desired application.

### APPLICATION METHOD / TOOLS

- When using Sika® Emulsion-93 to make a bonding coat the slurry should be thoroughly scrubbed into the prepared substrate.
- Always apply the mortar or plaster while the slurry is still tacky. If the slurry has dried out another coat should be applied.
- Mortars, screeds and plasters containing Sika® Emulsion-93 can be applied in their usual manner, following normal trade practices.

### CLEANING OF TOOLS

Clean all tools and equipment with water immediately after use. Hardened mortars containing Sika® Emulsion-93 can only be removed mechanically.

## LIMITATIONS

- Never use Sika® Emulsion-93 as a bonding coat on its own. Always use with cement and sand as recommended.
- Sika® Emulsion-93 may cause surface staining of coloured mortar or plaster finishes if the surface is exposed to water before it has completely dried.
- Always apply mortars, renders, etc to the bonding coat while it is still tacky. Another bonding coat must be applied if drying of the first coat has occurred.
- Mortars and plasters containing Sika® Emulsion-93 should still be protected from water evaporation during the early age curing period. We recommend the use of Sika® Antisol curing membranes for this purpose. Refer to separate data sheet for further information.

## BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

## ECOLOGY HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

## LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability 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 and purpose. Sika 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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