

# PRODUCT DATA SHEET

## SikaRep<sup>®</sup>-40 HB

### General Purpose Class 40 Fibre Reinforced Repair Mortar

#### DESCRIPTION

SikaRep<sup>®</sup> - 40 HB is a class 40 cementitious mortar reinforced with polymer fibre for repairing and rendering works.

#### USES

- Can be applied to overhead, horizontal or vertical concrete or mortar surfaces.
- It is ideal for use in repairing damaged and spalled concrete caused by reinforcement corrosion.
- SikaRep<sup>®</sup> - 40 HB can be used for most types general concrete repair and refurbishment work.

#### CHARACTERISTICS / ADVANTAGES

- Contain polymer fibre to improve mechanical properties
- Good workability, easy to apply.
- High build characteristics enable 40 mm to be placed without shuttering.
- Factory preblended product ensures greater on-site quality control.
- Good adhesion
- Non-toxic
- Suitable for rendering

#### PRODUCT INFORMATION

|                     |   |
|---------------------|---|
| Chemical Base       | Cement Based Powder   |
| Packaging           | 25 kg bag   |
| Appearance / Colour | Concrete grey   |
| Shelf Life          | 9 months from the date of production.   |
| Storage Conditions  | Store in undamaged and unopened original sealed packaging in cool dry conditions. Protect from direct sunlight and frost. |
| Density             | Approx. 2.00 kg/litre of freshly mixed mortar (wet)   |

#### TECHNICAL INFORMATION

|                           |                                    |                          |
|---------------------------|------------------------------------|--------------------------|
| Compressive Strength      | 30-60 N/mm <sup>2</sup> at 28 days | (BS 6319 : Part 2 (TM1)) |
| Tensile Strength          | > 2.0 N/mm <sup>2</sup> at 7 days  | (BS 6319 : Part 7 (TM2)) |
| Tensile Adhesion Strength | > 2.0N/mm <sup>2</sup> at 7days    | (BS 6319:Part 7(TM4))    |

#### APPLICATION INFORMATION

|              |  |
|--------------|--|
| Mixing Ratio | Water : Powder = 1:5.88 parts by weight<br>(i.e. approx. 4.25 litre water per 25 kg bag) |
|--------------|--|

|                        |  |
|------------------------|--|
| <b>Consumption</b>     | Approx. 68 bags/m <sup>3</sup><br>(Depending on concrete surface and application method) |
| <b>Layer Thickness</b> | Minimum 6 mm / Maximum 40 mm   |
| <b>Pot Life</b>        | Approx. 40 minutes   |

## 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.

## 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 Material Safety Data Sheet (MSDS) containing physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

The concrete must be sound, clean and free from oils, grease or surface contaminants. All loose materials and surface laitance must be removed by high pressure water jet blasting or by other mechanical means. Small area and spot repairs should be mechanically prepared by needle gunning, bush hammering or similar.

The prepared substrate should be dampened with clean water. SikaRep® - 40 HB should be applied over a bonding coat slurry (Mix 1 part of Sika® Latex to 1 Part of fresh Portland cement by weight). (refer to each data sheet).

All feathered edges around the area to be repaired should be squared off with an angle grinder and chiselled down to a minimum depth of 10.

### MIXING

Pour approx. 4.25 litres of clean water into a suitable mixing container and slowly add all the powder while mixing continuously with a mixing paddle attached to a low speed electric drill (max 500 rpm, with power approx. 1000 watt).

Thoroughly mix until a smooth, lump free consistency is achieved. A minimum mixing time of 3 minutes is recommended.

The water can be adjusted  $\pm 10\%$  to suit the consistency desired.

### APPLICATION

#### For Concrete Repairing

While bonding coat is still tacky, pack the mortar well into cavity of repair. Use a placing rather than a rendering technique to fill all voids and ensure thorough compaction is achieved.

Force the SikaRep® -40 HB against the edge of the repair and progressively work towards the centre.

For repair in excess of 40 mm thick, apply in layers en-

suring that each previous layer is sufficiently hardened and well keyed. If previous layers are over 48 hours old, scabble the surface and dampen. A mix of 1 part of Sika® Latex to 1 part of fresh Portland cement by weight may be used as a bonding slurry between layers.

Steel Trowel the final layer if required to achieve a smooth, tight finish.

#### For Rendering

Apply the render with trowel. Press the mortar into concrete surface and level it to the required thickness. Wipe the render surface with a sponge or float to achieve a smooth finish.

### CURING TREATMENT

As with all cementitious based mortar, SikaRep® - 40 HB must be protected against direct sunlight and wind while hardening. Cover all exposed mortar with wet hessian, plastic sheeting or use Sika curing compound.

### CLEANING OF TOOLS

Application and mixing tools should be cleaned with water while material is still fresh. Hardened material can only be removed mechanically.

## 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.

## 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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