

## PRODUCT DATA SHEET

## SikaQuick®-2500 ID

## VERY RAPID HARDENING REPAIR MORTAR

## DESCRIPTION

SikaQuick®-2500 ID is a one component, shrinkage compensated, very rapid hardening, early strength gaining, cementitious flowable material for concrete.

## USES

- Use on grade, above and below grade on concrete
- Highway overlays and repairs
- Structural repair material for concrete roadways, parking structures, bridges, dams and ramps
- Economical patching material for horizontal repairs of concrete and mortar

## CHARACTERISTICS / ADVANTAGES

- Easy to use, labour saving material
- Contains no added chlorides
- Not gypsum based
- High early strength
- Fast setting
- Open to foot traffic in 60 minutes, to vehicle traffic in 3 hour (at +27 °C)
- Easily applied to clean, sound substrate
- Not a vapour barrier

## PRODUCT INFORMATION

|                     |                                                                                                           |
|---------------------|-----------------------------------------------------------------------------------------------------------|
| Packaging           | 20 kg plastic bag                                                                                         |
| Appearance / Colour | Powder / Concrete Grey                                                                                    |
| Shelf Life          | 6 months from date of production if stored properly in undamaged unopened, original sealed packaging.     |
| Storage Conditions  | Store in dry conditions at temperatures between +4 °C and +35 °C. Protect from direct sunlight and frost. |

## TECHNICAL INFORMATION

|                             |         |                                                                  |                           |
|-----------------------------|---------|------------------------------------------------------------------|---------------------------|
| Compressive Strength        | 1 hour  | ~15 N/mm <sup>2</sup>                                            | (ASTM C-109)<br>at +27 °C |
|                             | 3 hours | ~24 N/mm <sup>2</sup>                                            |                           |
|                             | 1 day   | ~35 N/mm <sup>2</sup>                                            |                           |
|                             | 7 days  | ~50 N/mm <sup>2</sup>                                            |                           |
|                             | 28 days | ~60 N/mm <sup>2</sup>                                            |                           |
| Tensile Strength in Flexure | 28 days | >7 N/mm <sup>2</sup>                                             | (ASTM C-348)              |
| Tensile Adhesion Strength   | 3 hours | > 1.5 N/mm <sup>2</sup><br>(Using Sikadur®-732 as bonding agent) |                           |

## APPLICATION INFORMATION

|                         |                                                                                                                                                    |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mixing Ratio</b>     | Flowable Consistency = 2.8 litre / 20 kg bag (water / powder ratio 14%)<br>Pourable Consistency = 2.4 litre / 20 kg bag (water / powder ratio 12%) |
| <b>Consumption</b>      | Yield : ~2 300 kg/L<br>(~2 018 kg of SikaQuick®-2500 ID for 1 m³ of mortar)                                                                        |
| <b>Pot Life</b>         | ~15 min (at +27 °C)<br>(after adding powder to the water)                                                                                          |
| <b>Initial Set Time</b> | 20 - 30 min (at +27 °C)                                                                                                                            |
| <b>Final Set Time</b>   | 35 - 50 min (at +27 °C)                                                                                                                            |

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

Surface must be clean and sound. Remove all deteriorated concrete, dirt, oil, grease and other contaminants from the area to be repaired. Be sure repair area is not less than 5 mm deep. Preparation work should be done by appropriate means. Obtain an exposed aggregate surface with a minimum surface profile of 3 mm on clean, sound concrete. To ensure optimum repair results, the effectiveness of decontamination and preparation should be assessed by a pull-off test. Saw cutting of edges is recommended. Saturate surface to be repaired with clean water. Substrate should be saturated surface dry (SSD) prior to application.

#### PRIMING

Use Sikadur®-732.

Open time is approximately 40 – 60 minutes.

Apply SikaQuick®-2500 ID onto the still tacky Sikadur®-732.

In case of application to very small area, a scrub coat of SikaQuick®-2500 ID can be used prior to placement of mortar. Apply the scrub mortar only to prewetted concrete substrate. The open time of the scrub coat is approx. 10 minutes. Apply the following SikaQuick®-2500 ID onto the still wet scrub before it dries.

#### MIXING

Mechanically mix in an appropriately sized mortar mixer. Wet down all tools and mixer to be used.

##### Flowable consistency:

Start with 2.4 litres of water added to the mixing vessel. Add slowly 1 bag of SikaQuick®-2500 ID while continuing to mix. Add up to another 0.4 litres of water to achieve desired consistency. Mix for about 2 – 3 minutes until even consistency achieved.

##### Pourable consistency:

Put 3.0 L of water added to the mixing vessel. Add slowly 1 bag of SikaQuick®-2500 ID while continuing to mix. Mix for about 2 – 3 minutes until even consistency achieved.

## APPLICATION

### Flowable Consistency:

Pour the mortar onto the still “tacky” Sikadur®-732.

Finishing of the mortar can be conducted after 25 – 35 minutes.

### Pourable Consistency:

The prepared mortar must be scrubbed into the substrate. Be sure to fill all pores and voids. Force material against the edge of the repair, working toward the centre.

After filling the repair, screed off excess. Allow concrete to set to desired stiffness, then finish. If a smoother finish is desired, a magnesium float should be used.

Mixing, placing and finishing should not exceed 15 minutes maximum.

Maximum application thickness 30 mm as a mortar. For applications greater than 30 mm in depth add 10 mm coarse aggregate or use Sikadur Aggregate 510. The rate is 10 kg of aggregate per 20 kg bag of SikaQuick®-2500 ID. The aggregate must be clean, well graded and smooth.

To control setting times, cold water should be used in hot weather and hot water used in cold weather.

## CURING TREATMENT

Moist cure should commence immediately after finishing. If necessary, protect newly applied material from rain. To prevent from freezing, cover with insulating material.

## LIMITATIONS

- Minimum ambient and surface temperatures +7 °C and rising
- Minimum application thickness 5 mm as a mortar
- Use only potable water

## 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.

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### **Product Data Sheet**

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