

## PRODUCT DATA SHEET

# Sika® Chapdur® Premix

### NON METALIC FLOOR SURFACE HARDENER

#### DESCRIPTION

Sika Chapdur® -Premix is a ready-to-use mixture of cement, pigments, additives and hard aggregate of mineral origin. The particles have been specially selected for their shape, grading, high physical quality and mechanical performance.

#### USES

Sika® Chapdur® Premix may only be used by experienced professionals.

Sika Chapdur® -Premix is added to slab surfaces to improve their resistance to abrasion and inhibit dust formation. Sika Chapdur® -Premix is suitable for all floors exposed to severe mechanical wear, such as:

- Warehouses, quays, traffic lanes.
- Workshops.
- Car parks, service stations, garages etc.

#### CHARACTERISTICS / ADVANTAGES

##### Advantages :

- Good abrasion resistant .
- Reduces surface`s dust.
- Improves resistance to impact.
- Increases the concrete surface`s hardness .
- Easy application; Sika Chapdur® -Premix is sprinkled into the freshly placed concrete.
- Saves time and labour costs by eliminating the need for a monolithic screed.
- Even finish obtainable when properly smoothed.

#### SUSTAINABILITY

VOC Content < 0 g/L

#### PRODUCT INFORMATION

<b>Composition</b>	Blend of high grade mineral aggregates mixed with cement, admixtures and pigments.	
<b>Packaging</b>	30 kg per Bag .	
<b>Shelf life</b>	12 months from date of production if stored properly in original unopened packing.	
<b>Storage conditions</b>	Original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +30°C.	
<b>Density</b>	~ 1.4 kg/l.	
<b>Abrasion Resistance</b>	> 375% Compared to C25 concrete ( CS17 , 1000 Cycle , 1000g ) ASTM D4060	
<b>Compressive Strength</b>	77 N/mm2	ASTM C579 Method B
<b>Tensile Adhesion Strength</b>	> 1.5 N/mm2	Pull Off Test
<b>Water Absorption</b>	4.83%	ASTM C413

## System Structure

Use products mentioned below as indicated in their respective Product Data Sheets.

<b>Substrate</b>	Fresh concrete slab (See Substrate Quality below)
<b>Dryshake</b>	Manual or machine application of Sika®Chapdur Premix Levelling of surface by means of power trowel or laser screed. Final smoothing with power trowel.
<b>Curing compound</b>	The Sika Chapdur® -Premix surface must be protected to prevent early dry-out, crazing and bloom. Immediately after smoothing, apply a coat of curing compound ( <b>Antisol - 90</b> ) on the concrete (dosage approx. 100 – 150gr/m2).

## APPLICATION INFORMATION

<b>Consumption</b>	3.0 to 5.0 kg/m <sup>2</sup> , yielding a surface strengthening coat of approx. 2 - 3 mm thickness.			
<b>Ambient Air Temperature</b>	+5°C min. / +35°C max.			
<b>Relative Air Humidity</b>	30% r.h. min. / 98% r.h. max.			
<b>Substrate Temperature</b>	+5°C min. / +35°C max.			
<b>Applied Product Ready for Use</b>	Substrate Temperature	+10°C	+20°C	+30°C
	Foot traffic	~ 18 hours	~ 12 hours	~ 8 hours
	Fully serviceable	~ 10 days	~ 7 days	~ 5 days

The above values are dependant upon the concrete reaching its design strength for serviceability and will be affected by changing ambient conditions, particularly temperature and relative humidity.

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY

- The concrete deliveries must be of consistent quality.
- A concrete slump in the range 75 to 110 mm will normally give best results.
- The slab must be of good quality concrete with a minimum water/cement ratio consistent with the production of a fully compacted slab.
- The compressive strength must be a minimum of 25 N/mm<sup>2</sup>.
- Use of Sikament® or super plasticisers is advised to ensure the optimum quality of concrete, their optimum dispersion within the mix.
- The concrete should contain an adequate proportion of cement (300-350 kg/m<sup>3</sup>) and the slab should be at least 12 cm thickness for the best result.
- Flatten out the freshly poured concrete with a vibrating beam. As soon as its plasticity permits, smooth the concrete preferably using a mechanical trowel.
- Air Entrained Concrete is not a suitable substrate for the application of dry shake hardeners.

### SUBSTRATE PREPARATION

The concrete should contain an adequate proportion

of cement. It is recommended to add a suitable Sika® concrete admixture to improve its properties (e.g. Sikament®).

Level the freshly poured concrete by means of a vibrating beam. As soon as the plasticity permits, smooth the concrete preferably by using a mechanical trowel.

### APPLICATION

#### Broadcasting of Chapdur Premix

The concrete slab is ready for the Chapdurs cement coating when a thumb pressed hard onto the surface only leaves a 'print' of about 3 - 5 mm depth.

Broadcast the mix evenly by hand or with suitable device. Apply approx. 3.0 to 5.0 kg/m<sup>2</sup>

#### Compaction :

Wait until the Chapdur-Premix has been evenly moistened by the water in the concrete. Use a low rpm mechanical trowel, held perfectly flat.

Note:

If parts of the surface come loose or if the laitance rises, this means the concrete is still too fresh.

#### Smoothing :

As soon as the plasticity or initial set allows, perform preliminary smoothing with the same ma-

chine running at low speed but equipped with metal smoothing blades, set at minimum angle. Any final smoothing required should be performed later with the machine running at high speed.

### CURING TREATMENT

The Sika Chapdur® -Premix surface must be protected to prevent early dry-out, crazing and bloom. Immediately after smoothing, apply a coat of curing compound (**Antisol - 90**) on the concrete (dosage approx. 100 – 150gr/m<sup>2</sup>).

#### Joints:

Floor joints should be sawed out with a light saw within 1-7 day(s) after application according to the ambient temperature.

After finishing operations and completing saw cuts, clean off any residual saw lubricant / slurry without delay. Joints can be filled with appropriate Sikaflex® sealant in accordance with the floor design requirements.

## FURTHER INFORMATION

- Never add water to the surface where the dry shake has been applied.
- The application of the dry shake powder must not be carried out in strong wind or draughts.
- Do not use concrete where some cement has been replaced by fly ash, as this makes the mix sticky and less workable.
- Variations in concrete characteristics such as water content and cement quality may lead to slight colour variations.
- To ensure optimum of colour consistency, it is essential that the floor laying operation is as clean and protected from the environment as possible.
- Colour variation during the drying out period is normal for this system and is to be expected
- Every effort must be made to ensure an even application of Sika® Chapdur® Premix. Correct timing and trowelling techniques are essential.

## 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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