

## PRODUCT DATA SHEET

# Sikafloor® MultiDur ES-05 AP

### SELF-SMOOTHENING FLOORING SYSTEM

#### DESCRIPTION

Sikafloor® MultiDur ES-05 AP is a 0.5 mm self-smoothing, coloured, rigid flooring system based on epoxy resins

#### USES

Sikafloor® MultiDur ES-05 AP is a construction products which only should be applied by trained applicators.

Sikafloor® MultiDur ES-05 AP is used as:

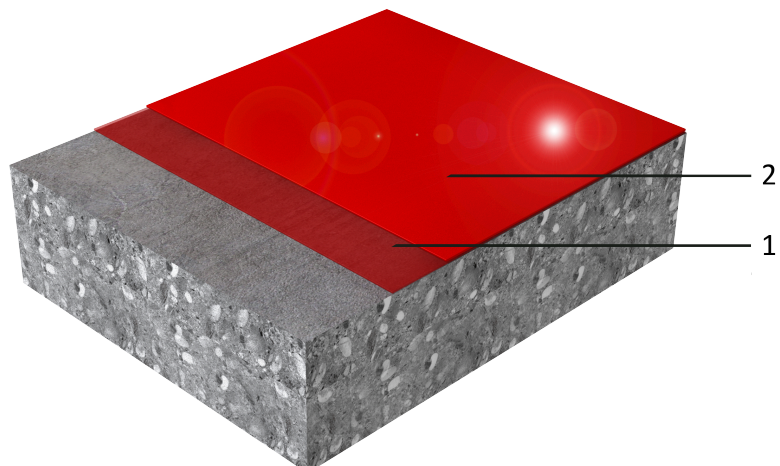
- Self-smoothing topping for concrete and cement screeds with normal upto medium heavy wear e.g. Production area, storage and assembly halls, maintenance workshops, garages and loading ramps.

#### CHARACTERISTICS / ADVANTAGES

- Good chemical and mechanical resistance
- Good wear & abrasion resistant
- Easy application
- Liquid proof
- Gloss finish
- Easy cleanability
- Wide range of RAL colours

#### SYSTEMS

##### System Structure



Layer	Build-up	Product
1	Primer	Sikafloor®-161/161 HC
2	Self-smoothing topping	Sikafloor®-264/264 HC

<b>Composition</b>	Epoxy
<b>Appearance</b>	Gloss finish
<b>Colour</b>	Available in RAL shades
<b>Minimum Thickness</b>	0.5 mm

## TECHNICAL INFORMATION

<b>Shore D Hardness</b>	~ 76 (7 days / +23°C)	(DIN 53505)
<b>Abrasion Resistance</b>	~ 41 mg (CS 10/1000/1000) (8 days / +23°C)	(DIN 53109)
<b>Compressive strength</b>	~ 53 N/mm <sup>2</sup> (28 days / +23°C)	(EN 196-1)
<b>Tensile Strength in Flexure</b>	~ 20 N/mm <sup>2</sup> (28 days / +23°C)	(EN 196-1)
<b>Tensile Adhesion Strength</b>	>1.5 N/mm <sup>2</sup> (failure in concrete)	(ISO 4624)
<b>Chemical resistance</b>	Resistant to many chemicals. Contact Sika technical service for specific information.	

## APPLICATION INFORMATION

<b>Consumption</b>	<b>Build-up</b>	<b>Product</b>	<b>Consumption</b>
	Primer	Sikafloor®-161/161 HC	0.35-0.50 kg/m <sup>2</sup>
	0.5 mm self smoothening topping	Sikafloor®-264/264 HC	0.70 kg/m <sup>2</sup>
<b>Product Temperature</b>	Please refer to the individual Product Data Sheet		
<b>Ambient Air Temperature</b>	+8°C min. / +35°C max.		
<b>Relative Air Humidity</b>	80 % r.h. max.		
<b>Dew Point</b>	Beware of condensation! The substrate must be at least 3°C above the Dew Point to reduce the risk of condensation, which may lead to adhesion failure or “blushing” on the floor finish. Be aware that the substrate temperature may be lower than the ambient temperature.		
<b>Substrate Temperature</b>	+8°C min. / +35°C max.		
<b>Substrate Moisture Content</b>	Moisture content of concrete substrate must be ≤ 4% by mass (pbw – part by weight) as measured with a Tramex® CME/CMExpert type concrete moisture meter on mechanically prepared surface according to this product data sheet (preparation to CSP-3 to CSP-4 as per ICRI guidelines). Do not apply to concrete substrate with moisture levels > 4% mass (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter. If moisture content of concrete substrate is > 4% by mass (pbw – part by weight) as measured with Tramex® CME/CMExpert type concrete moisture meter, use Sikafloor 81 EpoCem.		
<b>Pot Life</b>	<b>Temperature</b>	<b>Time</b>	
	+10°C	50 minutes	
	+20°C	25 minutes	
	+30°C	15 minutes	

## Waiting Time / Overcoating

Before applying Sikafloor®-264/264 HC on Sikafloor®-161/161 HC allow:

<b>Substrate temperature</b>	<b>Minimum</b>	<b>Maximum</b>
+10 °C	24 hours	3 days
+20 °C	12 hours	2 days
+30 °C	8 hours	1 day

Before applying Sikafloor®-264/264 HC on Sikafloor®-264/264 HC allow:

<b>Substrate temperature</b>	<b>Minimum</b>	<b>Maximum</b>
+10 °C	30 hours	3 days
+20 °C	24 hours	2 days
+30 °C	16 hours	1 day

Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity

## Applied Product Ready for Use

<b>Temperature</b>	<b>Foot traffic</b>	<b>Light traffic</b>	<b>Full cure</b>
+10°C	~ 72 hours	~ 6 days	~ 10 days
+20°C	~ 24 hours	~ 4 days	~ 7 days
+30°C	~ 18 hours	~ 2 days	~ 5 days

Note: Times are approximate and will be affected by changing ambient conditions.

## PRODUCT INFORMATION

<b>Packaging</b>	Please refer to the individual Product Data Sheet
<b>Shelf life</b>	Please refer to the individual Product Data Sheet
<b>Storage conditions</b>	Please refer to the individual Product Data Sheet
<b>Solid content by volume</b>	100%

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY

- The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm<sup>2</sup>) with a minimum pull off strength of 1.5 N/mm<sup>2</sup>.
- The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. If in doubt apply a test area first.
- Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.
- Repairs to the substrate, filling of blowholes/voids and surface levelling can be carried out using appropriate products from the Sikafloor®, Sikadur® and Sikagard® range of materials.
- The concrete or screed substrate has to be primed or levelled in order to achieve an even surface.

### SUBSTRATE PREPARATION

- Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.
- High spots must be removed by e.g. diamond grinding. All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum

### MIXING

Pre - mix is recommended for component A & colour component one day prior to application. Prior to mixing, stir part A mechanically when all of part B has been added to part A, mix continuously for 2-3 minutes until a uniform mix has been achieved. Decan whole mixed materials to another container & mix for a further 1 minute to achieve consistent mix & avoid any lumps or unmixed particle in the container. Over mixing must be avoided to minimize air entrainment.

### MIXING TOOLS

Sikafloor®-264 HC must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment. For the preparation of mortars use a forced action mixer of rotating pan, paddle or trough type. Free fall mixers should not be used.

### APPLICATION

Prior to application, confirm substrate moisture content, relative air humidity and dew point. If > 4 % pbw moisture content, Sikafloor® EpoCem® may be applied as a T.M.B. (temporary moisture barrier) system.

### Primer

Make sure that a continuous, pore free coat covers the substrate. If necessary, apply two priming coats. Apply Sikafloor®-161/161 HC by brush, roller or squee-

gee. Preferred application is by using a squeegee and then back rolling crosswise.

### **Levelling**

Rough surfaces need to be levelled first. Therefore use e.g. Sikafloor®-161/161 HC levelling mortar (see PDS).

### **Self smoothing**

Sikafloor®-264/264 HC as self smoothing topping can be applied by pin rack, notch trowel back roll with spike-roller crosswise.

### **CLEANING OF EQUIPMENT**

Clean all tools and application equipment with suitable solvent immediately after use. Hardened and/or cured material can only be removed mechanically.

### **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 declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

## **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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