

## PRODUCT DATA SHEET

# Sikafloor®-255 Screed

### ECONOMICAL PRE-MIXED BONDED SCREED

#### DESCRIPTION

Sikafloor®-255 Screed is a one part cement based screed. For levelling and smoothing of uneven floors applied as bonded screed.  
Suitable for use in hot and tropical conditions.

#### USES

- Suitable for applications as bonded screed
- Indoor applications only
- Residential and office buildings

#### CHARACTERISTICS / ADVANTAGES

- Good workability
- Good compaction
- Ready to use
- Good finishing

#### PRODUCT INFORMATION

<b>Composition</b>	Cement and graded aggregates
<b>Packaging</b>	25 kg bag 50 kg bag
<b>Appearance / Colour</b>	Grey powder
<b>Shelf life</b>	9 months from date of production
<b>Storage conditions</b>	Stored properly in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight, heat and moisture.

#### TECHNICAL INFORMATION

<b>Compressive strength</b>	(+23°C)	28 days	(ASTM C109)
	w/p=0.11	~40 N/mm <sup>2</sup>	
<b>Tensile strength in flexure</b>	(+23°C)	28 days	(EN 13892-2)
	w/p=0.11	≥ 5.0 N/mm <sup>2</sup>	
<b>Tensile adhesion strength</b>	(+23°C)	28 days	(BS EN 1881)
	w/p=0.11	≥ 0.5 N/mm <sup>2</sup> (screed to concrete substrate)	

# SYSTEMS

<b>System structure</b>	<p>Sikafloor®-255 Screed as a bonded screed:</p> <ul style="list-style-type: none"> <li>▪ Apply Sikabond DV bonding slurry mixed with cement to prepared concrete surface as a bonding and priming layer.</li> <li>▪ Apply Sikafloor®-255 Screed to the required thickness.</li> <li>▪ Apply suitable Sikalastic® waterproofing (if required)</li> <li>▪ Apply suitable SikaCeram® tile adhesive (if required)</li> <li>▪ Install the ceramic tiles, prefabricated or natural stones, etc.</li> </ul> <p>For more information please contact Sika Technical Department.</p>
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## APPLICATION INFORMATION

<b>Mixing ratio</b>	<p>Application as bonded screed:                  2.5 - 2.75 L water for 25 kg bag (w/p= 0.10 - 0.11)                  5.0 - 5.5 L water for 50 kg bag (w/p= 0.10 - 0.11)                  Note: For optimum results, always ensure that the correct mixing ratio is used.</p>							
<b>Fresh mortar density</b>	~2.25 kg/l							
<b>Consumption</b>	<p>~2.25 kg/m<sup>2</sup>/mm                  This figure is theoretical and does not include for any additional material required due to surface porosity, surface profile, variations in level and wastage etc.</p>							
<b>Layer thickness</b>	<p>Min. 20 mm                  Max. 70 mm (in one single layer)                  Note: Possible local application for areas &lt;10 m<sup>2</sup> in range from 10mm up to 80mm. Please contact Sika's Technical Department prior to commencing any work for application thickness beyond advised range (20-70mm).</p>							
<b>Ambient air temperature</b>	+10 °C min. / +35 °C max.							
<b>Relative air humidity</b>	< 75 %							
<b>Substrate temperature</b>	+10 °C min. / +35 °C max.							
<b>Pot Life</b>	<table border="1"> <thead> <tr> <th>Temperature and Relative Air Humidity</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>+35 °C / 50 %</td> <td>~30 min</td> </tr> </tbody> </table>	Temperature and Relative Air Humidity	Time	+35 °C / 50 %	~30 min	<p>The temperature will affect the pot life.                  Application at temperatures above +35 °C will reduce the pot life and the working time. Temperatures below +35 °C will increase pot life and extend working time.</p>		
Temperature and Relative Air Humidity	Time							
+35 °C / 50 %	~30 min							
<b>Waiting time to overcoating</b>	<p>Suitable to be covered with ceramic covering after 24 hours*.                  When covering Sikafloor®-255 Screed with other coverings and natural stones, always ensure the moisture content has achieved the required value for the covering product, as the waiting will vary with the application thickness and ambient humidity.                  (Refer to the covering Product Data Sheet and relevant standards)                  *Note: Times are approximate.</p>							
<b>Applied product ready for use</b>	<table border="1"> <tbody> <tr> <td>At +35 °C and 50 % r.h.</td> <td></td> </tr> <tr> <td>Foot traffic</td> <td>~24 hours</td> </tr> <tr> <td>Lightly serviceable</td> <td>~3 days</td> </tr> </tbody> </table>	At +35 °C and 50 % r.h.		Foot traffic	~24 hours	Lightly serviceable	~3 days	<p>Note: Times are approximate and will be affected by changing the substrate and ambient conditions, particularly the temperature and relative humidity.</p>
At +35 °C and 50 % r.h.								
Foot traffic	~24 hours							
Lightly serviceable	~3 days							

# APPLICATION INSTRUCTIONS

## SUBSTRATE QUALITY / PRE-TREATMENT

- The concrete substrates must be sound and of sufficient compressive strength (> 25 N/mm<sup>2</sup>) with a minimum pull off strength of 1.5 N/mm<sup>2</sup>.
- The surface must be clean, dry and free of all contaminants, for example 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 blow holes and voids must be fully exposed.
- Cement laitance, paints or other surface treatment agents must be completely removed.
- Suitable methods for surface preparation are high pressure water jetting or abrasive blast cleaning. Grinding is not sufficient.
- Other pre-treatments such as scarifying, milling, etc. must be combined with a jet/blast method to eliminate the remaining structural faults and to remove cement laitance and achieve an open and sound textured surface.
- Pre-requisite for a good bond between the substrate and levelling screed is an appropriate roughness of the substrate. The mean surface roughness should be as large as possible, but at least 1 mm.
- Repairs to the substrate, filling of blowholes/voids must be carried out using appropriate products from SikaTop®, Sika MonoTop®, Sikafloor®, Sikadur® or Sikagard® range of materials.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush or vacuum.
- Substrate must be pre-dampened with sufficient water (warning: no standing water/puddles) to a saturated, surface dry condition (SSD).
- A suitable bonding slurry primer need to be used.
- Do not apply on substrates with rising moisture. If rising moisture can occur an effective damp proof membrane must be applied and be in compliance with relevant national standard.

## EQUIPMENT

For Small to Medium volumes the following equipment is of use:

- Mixing containers
- Weighing scales
- Water containers
- Water measuring container
- Double spiral mix paddle & drill (< 500 rpm)

For Medium to Large volumes the following equipment should be used:

- Weighing scales
- Water containers
- Water measuring container
- Forced action mixer or rotating pan, paddle or trough type. (Compulsory mixer)
- Mixed material carriers/carts ( wheel barrows)

Note : Free fall (tumble) mixers must not be used in any case.

## MIXING

Add cold water according to the desired consistency into a clean mixing vessel before slowly adding the Sikafloor®-255 Screed powder.

Sikafloor®-255 Screed should be mixed by using low speed electric mixer (approximate 300–400 rpm). It is recommended to use a double disc stirring paddle or spiral mix paddle for 3 minutes or until the mix is free of lumps. For large areas forced action mixer or rotating pan mixers are recommended.

Mixed product should have semi-dry consistency without excess water.

In case of higher water temperature, the water could be cooled down using clean ice.

## APPLICATION

### BONDING SLURRY:

Adequate evaluation of the substrate conditions and state will determine the type of bonding slurry required and allow taking preventive measures to reduce the risk of failures. Bonding slurry must be used as a wet-on-wet application with the Sikafloor®-255 Screed. The bonding slurry must always be mixed to a mortar before application in suitable ratio which is defined through site trials for specific project, considering surface absorption, temperature, humidity, etc.

### SCREED MORTAR:

Immediately apply mixed mortar screed mix wet on wet onto the bonding slurry, ensuring sufficient compaction by pouring the mixed product to the surface and spread to the level, 10 mm above the pre installed batten (e.g. steel guides adjusted to the desired height), giving it a surcharge. Then tamp down the screed heavily to the level to give full compaction. Strike off excess screed material from the top level (above the batten) by running a straight edge ruler alongside it.

### CURING:

Curing must start immediately after application by covering finished areas with polyethylene sheet (with all leading edges lapped and secured), and left covered for a minimum 3 days. Covering by polyethylene sheet is essential to prevent premature drying. Continuation of curing shall be done with damp hessian for a period of 4 days minimum. Total duration of curing shall be no less than 7 days by combination of polythene sheeting and damp hessian. Failure to carry out adequate protection early enough can lead to edges curling and/or a dry friable surface through moisture loss.

## CLEANING OF EQUIPMENT

Clean equipment and mixer immediately after application with water. Hardened material can only be removed mechanically.

## FURTHER INFORMATION

- Please refer to Sika's Method Statement for further information.
- The recommendations set out in relevant standard (e.g. BS 8204-1, SIA 252, EN 13813, etc.) should be followed.

## IMPORTANT CONSIDERATIONS

- During summer season or temperature higher than 35°C, working area should be covered to prevent the direct sun effects. Water can be cooled down by using clean ice.
- Protect the floor screed after levelling from direct sunlight, wind and rain.
- Do not use where negative hydrostatic pressure is evident (i.e. rising damp)
- Only for residential and internal use (no heavy traffic, etc.).
- Raw material-related variations in the color, texture, pores on the surface are in mineral systems (floor leveling compounds) normal and no reason for complaint. Also under certain circumstances (drafts, sunlight, low humidity, etc.) fine "hairline cracks" can be expected.
- Do not mix Sikafloor®-255 Screed with cement or other cementitious product.
- Do not add extra water or other ingredients.
- Mix only full bags for best results.

## BASIS OF PRODUCT DATA

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

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

## ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets before using any products. 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.

### SIKA NORTHERN GULF

Bahrain / Qatar / Kuwait  
Tel: +973 177 38188  
sika.gulf@bh.sika.com  
gcc.sika.com

### SIKA SOUTHERN GULF

UAE / Oman / SIC  
Tel: +971 4 439 8200  
info@ae.sika.com  
gcc.sika.com

### SIKA SAUDI ARABIA

Riyadh / Jeddah / Dammam  
Tel: +966 11 217 6532  
info@sa.sika.com  
gcc.sika.com



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All products are supplied  
under a management  
system certified to conform  
to the requirements of the  
quality, environmental and  
occupational health &  
safety standards ISO 9001,  
ISO 14001 and OHSAS  
18001.

### Product Data Sheet

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