

PRODUCT DATA SHEET

Sikafloor®-161 L

2-PART EPOXY PRIMER, LEVELLING MORTAR, INTERMEDIATE LAYER AND MORTAR SCREED

DESCRIPTION

Sikafloor®-161 L is an economic, two part, solvent free, low viscosity epoxy resin. As primer, levelling mortar, middle layer and mortar screed as well as part of the Sika flooring systems.

USES

Sikafloor®-161 L may only be used by experienced professionals.

- For priming concrete substrates, cement screeds and epoxy mortars
- For normal to strong absorbent substrates
- Primer for the Sika flooring systems
- Binder for levelling mortars and mortar screeds

CHARACTERISTICS / ADVANTAGES

- Low viscosity
- Good penetration
- Excellent bond strength
- Solvent free
- Easy application
- Short waiting times
- Multi-purpose

APPROVALS / CERTIFICATES

Meet to the requirements of GB22374-2008

PRODUCT INFORMATION

Composition	Epoxy		
Packaging	Part A	20.8 kg	
	Part B	5.2 kg	
Appearance / Colour	Part A	Brownish liquid	
	Part B	Yellowish transparent liquid	
Shelf life	24 months		
Storage conditions	Stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5°C and +30°C.		
Density	Part A	~1.6 kg/l	GB6750
	Part B	~1.0 kg/l	
	Mixture	~1.4 kg/l	
All density values at +23°C.			
Solid content by weight	~100%		
Solid content by volume	~100%		

TECHNICAL INFORMATION

Shore D Hardness	~70	GB/T 2411
Compressive Strength	~60 N/mm ² (28 days, +23°C)	GB/T 17671
Tensile Adhesion Strength	> 1.5 N/mm ² (failure in concrete)	JC/T 907

APPLICATION INFORMATION

Mixing Ratio	Part A : part B = 4: 1 (by weight)		
Consumption	Coating System	Product	Consumption
	Priming	Sikafloor®-161 L	0.35 - 0.55 kg/m ²
	Levelling mortar fine (surface roughness < 1 mm)	1 pbw Sikafloor®-161 L +	1.7 kg/m ² /mm (mixture)
		0.5 pbw quartz sand (0.1 - 0.3 mm) + 0.015 pbw Extender T	
	Levelling mortar medium (surface roughness up to 2 mm)	1 pbw Sikafloor®-161 L +	1.8 kg/m ² /mm (mixture)
		1 pbw quartz sand (0.1 - 0.3 mm) + 0.015 pbw Extender T	
Intermediate layer (self-smoothing 1.5 to 3 mm)	1 pbw Sikafloor®-161 L +	1.8 kg/m ² /mm ² mixture ² (i.e.0.9 kg/m ² binder + 0.9 kg/m ² quartz sand) per mm layer thickness ~ 4.0 kg/m ²	
	0.8-1 pbw quartz sand (0.1 - 0.3 mm) + optional broadcast quartz sand 0.4 - 0.7 mm		
Bonding bridge	Sikafloor®-161 L	0.3 - 0.5 kg/m ²	
Epoxy screed (15 - 20 mm layer thickness) / Repair Mortar	1 pbw Sikafloor-161 L + 8 pbw quartz sand	2.2 kg/m ² /mm ² mixture ²	
Ambient Air Temperature	+10°C min. / +30°C max.		
Relative Air Humidity	80% r.h. max.		
Dew Point	Beware of condensation! The substrate and uncured floor must be at least 3°C above the dew point to reduce risk of condensation or blooming on the floor finish.		
Substrate Temperature	+10°C min. / +30°C max.		
Substrate Moisture Content	<p>< 6% pbw moisture content using the Sika®-Tramex meter (at the time of application)</p> <p>Please note the moisture content must be < 4% when using the CM-measurement method or Oven-dry-method.</p> <p>Test method: Sika®-Tramex meter, CM - measurement or Oven-dry-method.</p> <p>No rising moisture according to ASTM (Polyethylene-sheet).</p>		
Pot Life	Temperature	Time	
	+10°C	~ 50 minutes	
	+20°C	~ 25 minutes	
	+30°C	~ 15 minutes	

Curing Time

Before applying solvent free products on Sikafloor®-161 L allow:

Substrate temperature	Minimum	Maximum
+10°C	24 hours	4 days
+20°C	12 hours	2 days
+30°C	8 hours	24 hours

Applied Product Ready for Use

Temperature	Foot traffic	Light traffic	Full cure
+10°C	~ 24 hours	~ 6 days	~ 10 days
+20°C	~ 12 hours	~ 4 days	~ 7 days
+30°C	~ 8 hours	~ 2 days	~ 5 days

APPLICATION INSTRUCTIONS

EQUIPMENT

Sikafloor®-161 L 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.

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete substrates must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 1.5 N/mm².

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.

Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.

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 must 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.

High spots must be removed by e.g. 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

Prior to mixing, stir part A mechanically. When all of part B has been added to part A, mix continuously for 3 minutes until a uniform mix has been achieved.

When parts A and B have been mixed, add the quartz sand and if required the Extender T and mix for a further 2 minutes until a uniform mix has been achieved. To ensure thorough mixing pour materials into another container and mix again to achieve a consistent mix. Over mixing must be avoided to minimise air entrainment.

APPLICATION

Prior to application, confirm substrate moisture content, r.h. 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 L by brush, roller or squeegee.

Levelling mortar:

Rough surfaces need to be levelled first. Apply the levelling mortar by squeegee/trowel to the required thickness.

Intermediate layer:

Sikafloor®-161 L is poured, spread evenly by means of a serrated trowel. Roll immediately in two directions with spiked roller to ensure even thickness and if required broadcast with quartz sand, after about 15 minutes (at +20°C) but before 30 minutes (at +20°C), at first lightly and then to excess.

Bonding bridge:

Apply Sikafloor®-161 L by brush, roller or squeegee.

Epoxy screed / repair mortar:

Apply the mortar screed evenly on the still "tacky" bonding bridge, using levelling battens and screed rails as necessary. After a short waiting time compact and smoothen the mortar with a trowel or Teflon coated power float (usually 20 - 90 rpm).

CLEANING OF EQUIPMENT

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

IMPORTANT CONSIDERATIONS

Do not apply Sikafloor®-161 L on substrates with rising moisture.

Freshly applied Sikafloor®-161 L should be protected from damp, condensation and water for at least 24 hours.

Avoid puddles on the surface with the primer.

Sikafloor®-161 L mortar screed is not suitable for frequent or permanent contact with water unless sealed. Practical trials should be carried out for mortar mixes to assess suitable aggregate grain size distribution.

For external applications, apply on a falling temperature. If applied during rising temperatures "pin holing" may occur from rising air.

Construction joints require pre-treatment. Treat as fol-

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lows:

Static Cracks: prefill and level with SikaDur® or Sika-floor® epoxy resin

Dynamic cracks: to be assessed and if necessary apply a stripe coat of elastomeric material or design as a movement joint

The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking. Under certain conditions, underfloor heating or high ambient temperatures combined with high point loading, may lead to imprints in the resin.

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 the exact product data and uses.

ECOLOGY, HEALTH AND SAFETY

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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