

PRODUCT DATA SHEET

Sikafloor[®]-190 Screed

HEAVY DUTY EPOXY RESIN FLOOR SCREED

DESCRIPTION

Sikafloor[®]-190 Screed is a three component solvent-free mortar screed based on epoxy resins and specially graded aggregates. Suitable for use in hot and tropical and climatic conditions.

USES

Sikafloor[®]-190 Screed may only be used by experienced professionals.

Sikafloor[®]-190 Screed is used as a non-slip and abrasion resistant epoxy resin flooring screed in applications such as:

- Flooring subject to moderate or heavy loading
- Workshop and factory floors
- Machine shops and warehouses
- Depots and loading ramps
- Hangars
- Car parks with higher anticipated load
- Stairs

PRODUCT INFORMATION

Composition	Epoxy resin and selected natural aggregates	
Packaging	Component A	2.41 kg unit
	Component B	0.50 kg unit
	Component C	25 kg bag
Shelf life	12 months from date of production	
Storage conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight, heat and moisture.	

CHARACTERISTICS / ADVANTAGES

- Easy and fast to apply
- Excellent adhesion to substrate
- The screed may be mechanically smoothed using a plastic coated disk
- Non-slip, non-skid finish possible
- Excellent abrasion resistance
- High mechanical strength
- Permeable to water vapour
- Compatible with suitable Sikafloor[®] coatings

SUSTAINABILITY

Sikafloor[®]-190 Screed is certified according "Low Emitting Materials as per Al Sa'fat - Dubai Green Building Evaluation System" by Dubai Central Laboratory (DCL) certificate No. CL17020432

Appearance and colour	Natural / unpigmented	
Density	Part A	~1.13 kg/l
	Part B	~0.95 kg/l
	Mixed A+B+C	~2.13 kg/l
Note: All values at +20 °C.		

TECHNICAL INFORMATION

Shore D Hardness	~85 (7d / +23°C)	(ASTM D2240)
Abrasion resistance	<30 mg (CS-10 / 1000 g / 1000 cycles)	(ASTM D4060)
Indentation	Impact strength: ~1.21 kg*m (11.87 joules) Note: No cracks or any other surface damage	(ASTM D2794)
Compressive strength	≥85 N/mm ² (28d / +23 °C)	(ASTM C579)
Tensile strength in flexure	~35 N/mm ² (28d / +23 °C)	(ASTM C580)
Tensile strength	~15 N/mm ² (28d / +23 °C)	(ASTM C307)
Tensile adhesion strength	≥ 2.5 N/mm ² (or concrete failure)	(ASTM D4541)
Temperature resistance	+100 °C (24 hours exposure) Conclusion: No failure observed	(ASTM D2485)
Chemical resistance	Please contact Sika's Technical Department for further information.	

SYSTEM INFORMATION

Systems	Primer	Sikafloor®-151/-161/-161 G
	Mortar Screed	Sikafloor®-190 Screed

APPLICATION INFORMATION

Mixing ratio	Component A : Component B : Component C = 4.82 : 1 : 50 parts by weight Component A+B : Component C = 1 : 8.6 parts by weight It is recommended to mix full kits only.	
Consumption	Sikafloor®-151/-161/-161 G	~0.3 - 0.5 kg/m ² (depending on substrate condition)
	Sikafloor®-190 Screed	~2.20 kg/m ² /mm
These figures are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level and wastage etc.		
Layer thickness	For heavy duty floor screed	For local repair, floor drainage slopes and coverings
	Min. 5 mm Max. 50 mm	Min. 2 mm Max. 80 mm
Ambient air temperature	+8 °C min. / +35 °C max.	
Relative air humidity	+20 % min. / +80 % max.	
Dew point	Beware of condensation. The substrate and uncured floor surface temperature must be at least 3 °C above the dew point to reduce the risk of condensation which could result in lack of adhesion and/or blooming.	
Substrate temperature	+8 °C min. / +35 °C max.	

Substrate moisture content	< 4 % pbw moisture content. Test method: Sika®-Tramex meter, CM - measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).		
Pot Life	+10 °C ~75 min	+20 °C ~60 min	+30 °C ~40 min
Quantity: 200 gram sample The pot life starts when the resin and hardener are mixed. It is shorter at high temperatures and longer at low temperatures. The larger the quantity mixed, the shorter the pot life.			
Curing time	Curing time	+10 °C	+20 °C
	Foot traffic	36 h	36 h
	Light mechanical loading	3 d	2 d
	Fully serviceable	10 d	7 d
			+30 °C
			12 h
			2 d
			5 d
Note: Times are approximate and will be affected by changing ambient and substrate conditions, particularly temperature and relative humidity.			
Waiting time to overcoating	Fully cured Sikafloor®-190 Screed can be overcoated with suitable Sika-floor® or Sikagard® range of coatings.		

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.

FURTHER INFORMATION

- Method Statement: Sikafloor®-190 Screed
- Method Statement: "EVALUATION AND PREPARATION OF SURFACES FOR FLOORING SYSTEMS"
- Method Statement: "MIXING & APPLICATION OF FLOORING SYSTEMS"

IMPORTANT CONSIDERATIONS

- Always apply "wet on wet" over primer.
- Cementitious substrates must be at least 4 weeks old.
- Failure to assess and treat cracks could lead to reflective cracking and reduced service life.
- Sikafloor®-190 Screed is not designed to be a decorative or aesthetic finish.
- Fully cured Sikafloor®-190 Screed can be overcoated with suitable Sikafloor® and Sikagard® range of coatings.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

- The concrete substrate 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.
- 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. grinding.
- Weak concrete must be removed and surface defects such as blow holes 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.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush or vacuum.

MIXING

Stir Component (A) thoroughly with a slow speed electric stirrer prior to batching. Add Component (B) and mix 2-3 minutes at slow speed. Place the pre-batched quantity of Component (C) into the mixer (forced action pan type). Add the prepared resin mix (Components A+B) while the mixer is running, and continue to mix until a homogeneous and uniformly moist mix is obtained.

APPLICATION

- Divide the total area into bays, covering only an area that can be applied within the pot life of the product.
- Place the mixed screed while the primer coat is still tacky.
- Spread the Sikafloor®-190 Screed mixture evenly onto the substrate using levelling boards and guide rails, by giving it a surcharge over preinstalled batten (e.g. steel guides adjusted to desired height)
- Then tamp down the screed heavily to desired level to give full compaction. When applied in higher thicknesses, compact the screed in layers.
- Level the screed by striking off excess material by running a straight edge ruler across batten.
- Compact thoroughly by tamping.
- Smooth with a hand trowel.
- Finish by steel floating.

CLEANING OF EQUIPMENT

Clean all tools and equipment immediately after use with Sika® Thinner C. Once hardened, the material can only be removed mechanically.

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.

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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ISO 9001: Sika UAE LLC,
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ISO 45001: Sika UAE LLC,
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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 ISO 45001.

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