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3/2011

Construction

Method Statement for Application Of Sika Floor 263SL

"SIKA EGYPT"
Flooring Systems

A- Limitations

- Minimum age of cementitious substrate (3-6) weeks depending on climate conditions and curing, unless we use one of Epocem's technology products
- The compressive strength should be ≥ 25 N/mm² or to meet defined loads.
- The adhesive tensile strength should be ≥ 1.5 N/mm²
- The moisture content in the concrete should be < 4%
- The relative humidity should be < 80%
- The bearing layer surface temperature should be 3°C degrees above the determined dew point temperature in order to avoid water condensation.
- Minimum substrate temperature + 10°C

B- Surface Preparation:

- The substrate must be clean –free from grease, oils or organic/in organic acids and all loosely adhering particles- dry and sound.
- For good bond insufficient layers and oily contamination's must be removed mechanically also for, e.g. by sand blasting or grinding.
- Vacuum cleaning is than required.

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3. Substrate Requirements

3.1 Pull off and compressive strength

The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm^2) with a minimum pull off strength of 1.5 N/mm^2.

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.

Testing of the substrate
Pull-off strength > 1.5 N/mm^2.
E.g. Proceq, Dyna pull-off tester.

3.2 Moisture content

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.

Measuring of the substrate moisture:
Moisture content < 4% by weight.
E.g. Sika Tramex moisture meter.

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Tramex moisture meter.

There must be no rising moisture according to ASTM D 4263 (Polyethylene sheet test)

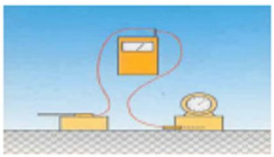
< 4% pbw if priming with Sikafloor®-161 VP

> 4% pbw application of a temporary moisture barrier with Sikafloor®-81 EpoCem (please refer to Sikafloor-81 EpoCem Product Data Sheet)

3.3 Ambient and surface temperature

Ambient and Surface temperature:

- Min. +10°C (but at least 3°C above dew point)
- Max. +30°C



Defining the climatic conditions:
Substrate temp. > 3°C above dew point
E.g. thermometer, hygrometer, dew point table.

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1. Products and Description

- **Sikafloor®-161**

Two part, economic, solvent-free epoxy resin binder for priming, levelling mortars and screeds.

- **Sikafloor®-263 SL**

Two part, economic, solvent-free, pigmented epoxy resin binder for self-smoothing screeds.

- **Quartz sand**

F36 (0.08 - 0.25 mm)
F34 (0.1 - 0.3 mm)
0.4 - 0.7mm
0.6 - 1.2 mm

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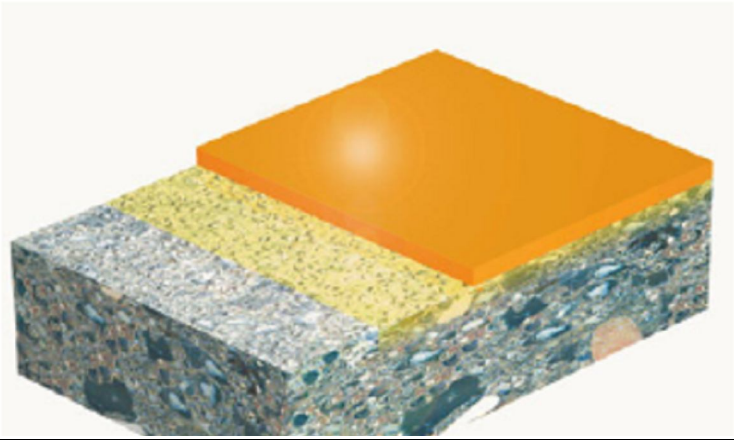
2. Sikafloor®-263 SL System Build Up

Coating System	Product	Consumption
Primer	Sikafloor®-161	0.35 - 0.55 kg/m²
Levelling (optional)	Sikafloor®-161 levelling mortar	Refer to PDS of Sikafloor®-161
Self-smoothing wearing course (Film thickness ~ 1.5 - 3.0 mm)	1 pbw Sikafloor®-263 SL 1 pbw quartz sand F 34 (0.1 - 0.3 mm)	1.9 kg/m² mixture (0.95 kg/m² binder + 0.95 kg/m² quartz sand) per mm layer thickness
Broadcast system (Film thickness ~ 4.0 mm)	1 pbw Sikafloor®-263 SL 1 pbw quartz sand F 34 (0.1-0.3 mm) + broadcasting quartz sand 0.4 -0.7 mm + Seal coat Sikafloor®-264	2.00 kg/m² 2.00 kg/m² ~ 6.0 kg/m² ~ 0.7 kg/m²



Primer Layer:

- Apply Sika Floor 161 (***Two-component low viscosity primer, based on epoxy resin)***
- Prior to application of Sikafloor® 161 both components A + B have to be mixed intensively with an electrical or pneumatically stirrer of approx. 300 – 400 rpm. Mixing time is minimum 3 minutes but it may take longer until a homogeneous mixture is achieved.
- To achieve uniform and perfect wetting, Pour properly prepared material onto substrate and evenly distribute using roller or brush.
- Consumption depending on porosity of substrate minimum 2 x Sikafloor® 94, .Material consumption approx. 0.2- 0.3 kg/m2 / coat.

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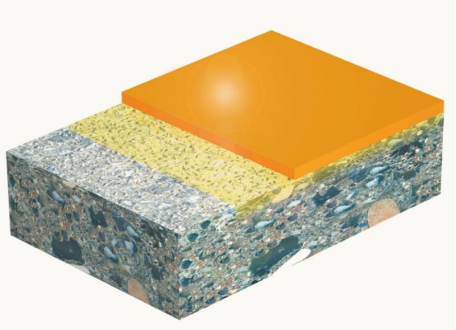
Average consumption for scratch coats and primer are shown in the table below:

Sikafloor-161	0.35 - 0.55 kg/m²
Levelling (Optional. In case of a surface roughness > 0.5 mm)	
Surface roughness < 1 mm Sikafloor-161	
1 pbw Sikafloor-161 + 0.5 pbw quartz sand (0.1 - 0.3 mm) + 0.015 pbw Extender T	1.0 kg/m² 0.5 kg/m² 0.015 kg/m²
Total consumption	1.4 - 1.5 kg/m²/mm
Surface roughness up to 2 mm Sikafloor-161	
1 pbw Sikafloor-161 + 1 pbw quartz sand (0.1 - 0.3 mm) + 0.015 pbw Extender T	1.0 kg/m² 1.0 kg/m² 0.015 kg/m²
Total consumption	1.6 - 1.7 kg/m²/mm

Sika System

- **Primer : Sikafloor-161 , a solvent free epoxy primer**
- **Self Leveling layer of Sikafloor-263SL a solvent free, Coloured epoxy binder**



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Mixing of Sikafloor 161 Primer

Prior to mixing, stir component A (resin) and add all of component B (hardener).

Make sure the hardener is fully emptied into the resin component

Mix both components thoroughly with a low speed electric stirrer (300 - 400 rpm).

Mix for at least 3 minutes until a uniform mix has been achieved.

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7. Application of Sikafloor-161 as a Primer

Make sure, that all substrate requirements are met, such as temperature, moisture content of the prepared substrate etc. (please refer to section 5). Apply Sikafloor-161, if the moisture content is below 4%, (test method: Sika-Tramex, or CM-measurement or Oven-dry-method; no rising moisture according to ASTM (Polyethylene-sheet)). If the moisture content is above 4%, apply Sikafloor EpoCem system as a temporary moisture barrier – please refer to the PDS).

Apply the mixed material by roller, taking care to ensure good wetting of the substrate but avoiding puddles on the surface. Work within the potlife of the material (15 minutes at 30°C).

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

Freshly applied Sikafloor®-161 should be protected from damp, condensation and water for at least 24 hours. Sikafloor®-161 mortar screed is not suitable for frequent or permanent contact with water unless sealed.

Apply by brush, roller or squeegee and work well into the substrate.

9. Mixing of Sikafloor-263 SL

Please refer to section 6 'Mixing of Sikafloor-161' with regards to the handling and decanting of 200 Litre drums.

Prior to mixing, stir part A mechanically. When all of part B has been added to part A, mix continuously for 2 minutes until a uniform mix has been achieved.

When parts A and B have been mixed, add the quartz sand 0.1 - 0.3 mm 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.

Mixing of Sikafloor-263 SL.

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10. Application of Sikafloor-263 SL

Make sure, that the application of Sikfloor-263 SL is still within the overcoating time.

Sikafloor®-263 SL is poured, spread evenly by means of a serrated trowel. Turn the serrated trowel and smooth the surface in order to remove air bubbles.

Roll immediately in two directions with a spiked roller to ensure even thickness and to remove entrapped air.

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

Sikafloor®-263 SL is poured, spread evenly by means of a serrated trowel, either standing up or kneeling down.

After spreading the material evenly, turn the serrated trowel and smooth the surface in order to achieve an aesthetically higher grade of finish.

Close up.

Roll immediately in two directions with a spiked roller to ensure even thickness and to remove entrapped air.

Close up.

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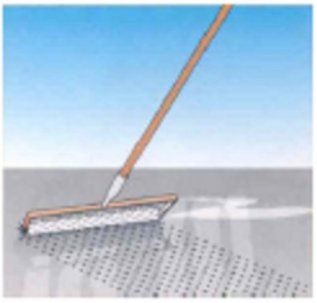
11. Tools and Equipment

Professional equipment is required to achieve a functioning floor, such as: vacuum shot blaster, grinder, scabbler etc.

Preparation of the substrate: Blast cleaning or other mechanical means e.g. Blastrac

Even application of Primer coat: Sikafloor®-161 with medium to long haired roller or brush. E.g. Polyplan roller and brush.

Spreading of Sikafloor®-263 SL with notched trowel. E.g. Polyplan notched trowel 5/7 mm.



Removal of entrapped air. Spike rolling immediately e.g. Polyplan spike roller.

For lifting, transportation, storing and filling of 200 Litre drums. E.g. Polyplan 'barrel cart'.

Decanting of large drums into smaller units. E.g. Polyplan 'stop cock'.

➢ **Please refer to attached technical data sheets**

Technical Department.

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