

Method Statement

Sikafloor[®]-264

Corporate Construction

Scope:

Method statement for the application of Sikafloor[®]-264, a 2-part, economic roller and seal coat.

The information contained herein and any other advice 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. The information only applies to the application(s) and product(s) expressly referred to herein. In case of changes in the parameters of the application, such as changes in substrates etc., or in case of a different application, consult Sika's Technical Service prior to using Sika products. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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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1. Products and Description



- **Sikafloor®-161**

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



- **Sikafloor®-264**

Two part, economic, solvent-free, pigmented epoxy roller and seal coat.



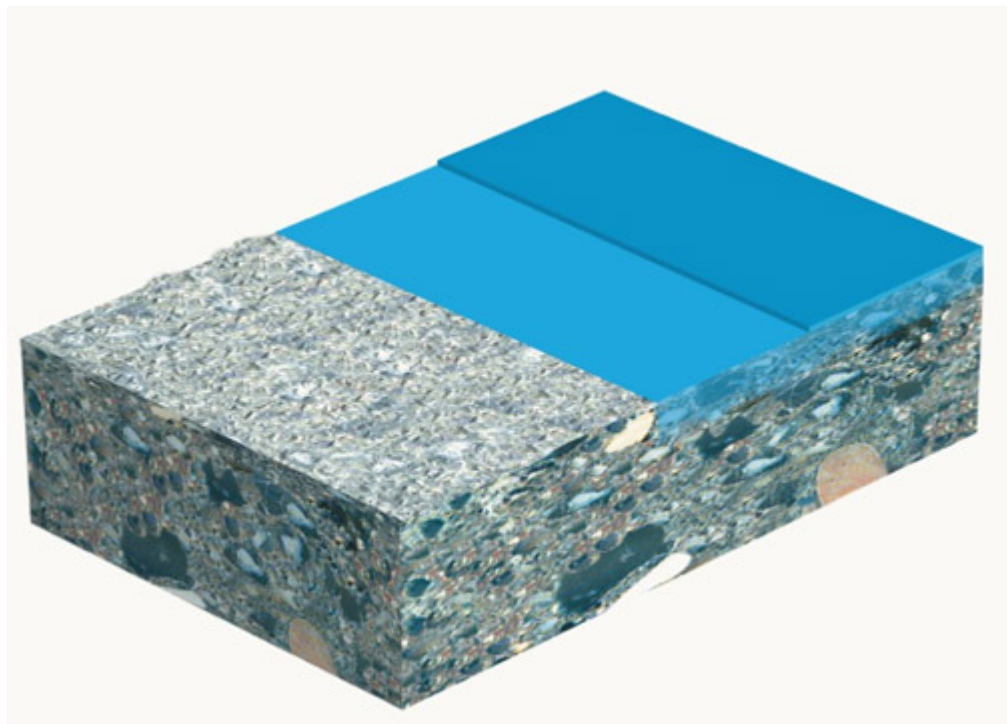
- **Quartz sand**

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



2. Sikafloor®-264 System Build Up

Coating System	Product	Consumption
Primer	Sikafloor®-161	0.35 - 0.55 kg/m ²
Levelling (optional)	Sikafloor®-161 levelling mortar	Refer to PDS of Sikafloor®-161
Roller coating	2 x Sikafloor®-264	0.25 - 0.3 kg/m ² for each layer
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/m ² 2.00 kg/m ² ~ 6.0 kg/m ² ~ 0.7 kg/m ²



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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/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.



Testing of the substrate
Pull-off strength > 1.5 N/mm².
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.



Tramex moisture meter.

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



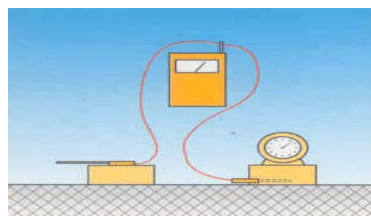
< 4% pbw if priming with Sikafloor®-161

> 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.



Substrate temperature:



Substrate temperature > 10°C

Ambient temperature:



Ambient temperature below 30°C

Relative air humidity:



Relative air humidity max. 80%

Note: The speed of any chemical reaction is dependent on temperature. As a general rule, the higher the temperature, the more rapid the reaction.

Beware of condensation!
The substrate must be at least 3°C above dew point.



4. Substrate Preparation

Concrete substrates must be mechanically prepared using abrasive blast cleaning to remove cement laitance, existing coatings and achieve a gripping profile that is clean, dry and free from laitance, dirt, grease, oil and any other form of surface contamination. Vacuum blasting or similar techniques are ideally suited.

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.

The selected method of preparation will depend on the surface condition, environmental constraints and availability of services. The method may be selected on the basis of trial areas, approved by the Contract Administrator.



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



Vacuum shot blasting

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



Cleaning of the surface

All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and vacuum.



Clean substrate

The surface must be clean, dry and free of all contaminants, e.g. dirt, oils, grease, coatings and surface treatments, etc.



Substrate defects, such as cracks, blow holes and voids must be repaired using appropriate products from the SikaTop[®], Sika[®] MonoTop[®], Sikafloor[®], Sikadur[®] or Sikagard[®] range.

If in doubt apply a test area first.



5. Substrate Priming and Levelling

Primer:

Make sure that a continuous, pore free coat covers the substrate. If necessary, apply two priming coats. Apply Sikafloor®-161 at a consumption of 0.35 - 0.55 kg/m² by means of brush, roller or squeegee.

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

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

Construction

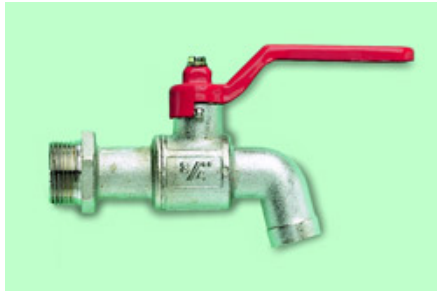


6. Mixing of Sikafloor-161



Mixing area:

Make sure that all materials are available and easy accessible so that during the application a "wet edge" can always be maintained. The 200 Litre drums can be easily handled by using a 'barrel cart' as shown in the picture above. (Barrel cart, tap and scale can be found



Materials can be easily decanted into smaller units using a tap and a scale as shown in the pictures above.



Electric drum mixer



Pneumatic drum mixer

Note: Mix Component A using an electric or pneumatic barrel stirrer (300 - 400 rpm) for at least 3 minutes before decanting into smaller units.

Mix Component A and B of Sikafloor-161 using an electric or pneumatic stirrer (300 - 400 rpm) for at least 3 minutes or longer, until homogeneous, uniform mix is achieved.

Mix Ratio of A : B = 3 : 1 by weight

Transfer mixed material to a clean container and mix for another minute.



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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.





Transfer mixed material to a clean container.



Mix for another minute.

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.



When maximum waiting times are expected to be exceeded lightly broadcast with kiln dried quartz sand (0.4 - 0.7 mm) at a maximum of 1.0 kg/m².

8. Mixing and Application of the Scratch Coat

Make sure, that the application of the scratch coat is still within the overcoating time.

Mix Component A and B of Sikafloor-161 VP using an electric or pneumatic stirrer (300 - 400 rpm) for at least 2 minutes or longer, until homogeneous colour is obtained.
Mix Ratio of A : B = 3 : 1 by weight

When Parts A and B have been mixed, add the quartz sand and if required Extender T and mix for a further 2 minutes until a uniform mix has been achieved.

Mix Ratio of A+B : quartz sand : Extender T =

Surface roughness < 1 mm

1 pbw Sikafloor-161
+ 0.5 pbw quartz sand (0.1 - 0.3 mm)
+ 0.015 pbw Extender T

Surface roughness up to 2 mm

1 pbw Sikafloor-161
+ 1 pbw quartz sand (0.1 - 0.3 mm)
+ 0.015 pbw Extender T

Transfer to a clean container and mix again shortly.

Pour onto the floor and then spread it evenly using a twin blade trowel ore squeegee in the required layer thickness. 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.

After curing, grinding of the whole area is recommended to remove high spots.



Application of the scratch coat by squeegee / trowel to the required thickness – kneeling down or ...



... standing up.

9. Mixing of Sikafloor-264

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.

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-264.

Note: Please refer to the pictures in section 6 with regards to the mixing procedure, which is analogue to that of Sikafloor-161.

10. Application of Sikafloor-264

Make sure, that the application of Sikafloor-264 is still within the overcoating time.

Coating:

Sikafloor®-264 as coating, can be applied by short-piled roller (crosswise).

Seal coat:

Sealer coats can be applied by squeegee and then back-rolled (crosswise) with a short-piled roller.

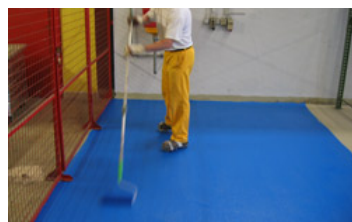
Clean all tools and application equipment with Thinner C immediately after use.
Hardened / cured material can only be mechanically removed.



Sikafloor®-264 applied as a coating.



Sikafloor®-264 applied as a seal coat by squeegee.



Sikafloor®-264 back-rolled.

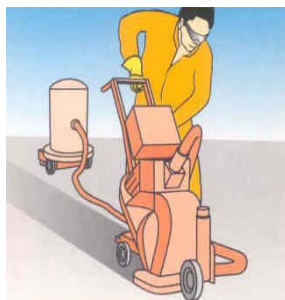


Close up short piled roller.



11. Tools and Equipment

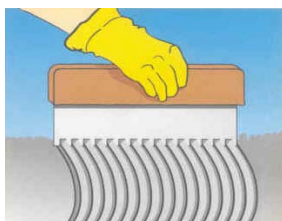
Professional equipment is required to achieve a functioning floor, such as: vacuum shot blaster, grinder, scabbler etc.



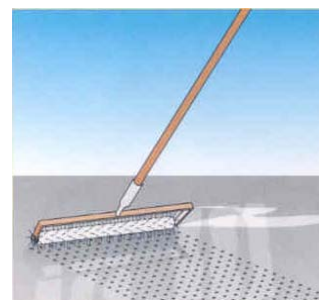
Preparation of the substrate:
Blast cleaning or other
mechanical means e.g. Blastrac



Even application of Primer coat:
Sikafloor®-264 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'.

Recommended Supplier of Tools:

PPW-Polyplan-Werkzeuge GmbH, Phone: +49 40/5597260, www.polyplan.com
Serrated trowel for smooth wearing layer: e.g. Large-Surface Scrapper No. 565,
Toothed blades No. 25. Spiked roller, moisture meter, safety equipment - gloves,
goggles etc.



Electric drum mixer.



Pneumatic drum mixer

Recommended supplier of the above shown drum mixer:
Geppert Rührtechnik GmbH, Germany, phone +49 6150/9674-0, www.geppertmix.de
Drum-mixer: e.g. Type FR or FRP



RGE 162 DUO

Recommended supplier of the above shown twin paddle mixer:
Collomix Rühr- und Mischgeräte GmbH, Germany, phone +49 (08458) 32 98-0,
www.collomix.de

12. Cleaning and Subsequent Maintenance

To ensure that your Sika flooring system stays in the best of shape and gives you years of satisfaction the correct cleaning and maintenance schedule should be used.

When first installed and fully cured your floor should be cleaned with an appropriate floor cleaner using the most suitable equipment for the area concerned.



Initial Clean:

Firstly, you should sweep the area to remove any loose debris.

An inspection of the area should then be undertaken to see, if there are any areas that require individual treatment such as oil spillages or scuff marks from shoes or fork lift tyres. Application of industrial cleaning detergents to these areas, either as supplied or diluted with water, then given some agitation and allowed to dwell for 5 to 10 minutes will help to remove these.

The floor area should then be cleaned using a mild alkaline cleaner or the heavier duty alkaline cleaner. Method of and equipment for the cleaning of the area will depend upon size and manpower available. On site surveys should be carried out by a professional specialist floor cleaning company. Their representatives have knowledge of resin products coupled with the correct chemicals and machinery to clean and maintain your **Sikafloor**[®] to the highest levels at all times.

Pre-use Inspection:

The floor should now be inspected to ensure that it has been cleaned to your required standard and that all soiling has been removed.

Precautions:

If you will now be placing equipment, storage racking, goods, furniture, filing cabinets etc. on the floor, then every effort should be taken to minimise surface scratching and marking. Dragging of heavy articles across the flooring may damage the surface. Fork lift trucks should be driven with care to avoid marking caused by wheel spin or slide.



Looking After Your Floor:

If the correct cleaning and maintenance schedule is used the appearance of your floor can be easily maintained.

For floors with a high gloss finish it is acceptable practice to lay a sacrificial layer of an acrylic polish, which will keep the high gloss finish, give a hard wearing surface, have the ability to allow for the removal of surface scratches or blemishes, whilst still incorporating anti-slip properties.

Once the above action or the decision to leave the floor as supplied has been taken, then the floor will require regular cleaning with either a neutral or mildly alkaline floor cleaner depending upon the type and level of soiling encountered.

If you have decided to use a sacrificial surface polish on your floor then any visible wear can be overlaid with a fresh coat. However, if continual additions of coats are made then it may be necessary to occasionally remove the polish and start-a-fresh.

Spillages:

Spillages of any liquid should be wiped up or absorbed and removed as soon as possible. Not only is this a responsible action as far as Health and Safety is concerned, it will also help you to keep your floor in good condition. Once the spillage is removed the area should be cleaned as usual with your standard floor cleaner. If a sacrificial coat has been previously applied the floor should be inspected to see if this remains. If not, it should be reapplied as soon as possible.

Remember:

Initial clean before use.

- Take care when installing equipment etc.
- Sacrificial polish if required.
- Regular cleaning with the right product and equipment where necessary.
- Clean up spillages.

And your **Sikafloor**[®] will give you years of hard wear and still look good.



Recommended supplier of cleaning products:

Wetrok AG

Steinackerstr. 62
CH-8302 Kloten

Tel.: +44 (0) 848 81 81 81
Fax: +44 (0) 43 255 53 79
E-mail: wetrok@wetrok.ch

JohnsonDiversey Deutschland GmbH & Co. oHG

Mallaustraße 50-56
D-68219 Mannheim

Tel.: +49 (0) 621 / 87 57 - 0
Fax: +49 (0) 621 / 87 57 -266
E-Mail: info.de@johnsondiverse.com

Johannes Kiehl KG

Robert-Bosch-Straße 9
D-85235 Odelzhausen

Tel.: +49 (0) 8134/9305-0
Fax.: +49 (0) 8134/6466
E-mail: info@kiehl-group.com

13. Additional Recommendation

Read the Product Data Sheet carefully, particularly the Notes on Applications / Limitations for further information on how to prevent application mistakes.

14. Health and Safety Recommendations

Ensure sufficient ventilation during application.

Wear proper safety equipment (gloves, eye goggles, safety boots and protective clothes) during application.

For more details, refer to Individual Safety Data Sheet (available upon request).



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