BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-264 HC N

Epoxy self-smoothing flooring and coating resin

DESCRIPTION

Sikafloor®-264 HC N is a 2-part, clear epoxy, self-smoothing flooring and coating resin for topping applications.

USES

Sikafloor®-264 HC N may only be used by experienced professionals.

Industrial self-smoothing flooring and coating resin on cementitious substrates for:
- Normal up to medium heavy wear
- Assembly halls
- Dry production areas
- Warehouses
- Workshops
- Garages
- Loading ramps
- Interior use only

Industrial resin flooring seal coat on Sika broadcast systems for:
- Multi-storey and underground car park decks
- Wet and dry production areas
- Aircraft hangars
- Food & beverage process areas
- Interior use only

CHARACTERISTICS / ADVANTAGES

- Seamless and hygienic
- Good chemical and mechanical resistance
- Easy application
- Liquid proof
- Gloss finish
- Slip-resistant broadcast surface possible
- Easily cleaned and maintained
- Can be filled with sand to produce a self-smoothing resin
- Low maintenance
- Does not support growth of bacteria and fungus
- Wide range of ~RAL colours (consult Sika® representative)

APPROVALS / STANDARDS

- Particle emission certificate Sikafloor-264 HC CSM Statement of Qualification – ISO 14644-1, class 4–Report No. SI 0904-480 and GMP class A, Report No.SI 1008- 533.
- Outgassing emission certificate Sikafloor-264 HC: CSM Statement of Qualification – ISO 14644-8, class 6,5 - Report No. SI 0904-480.
- Good biological Resistance in accordance with ISO 846, CSM Report No. 1008-533
- Fire Classification EN 13501-1, Sikafloor®-264, MPA Dresden Germany, Test report No. 2013-B-2119/01
- 2-part epoxy roller and seal coat according to EN 1504-2: 2004 and EN 13813:2002.
- Dielectric breakdown voltage test IS : 2584, Sikafloor-264® HC N, ERDA Vadodara, Report No. RP-1920-007057.
- Food grade test USFDA 175.300 1st April 2017, Sikafloor-264 HC, CFTRI Mysore, Report dated 22 Dec 2018.

PRODUCT INFORMATION

Composition	Epoxy
Packaging	**For systems with thickness < 1 mm** Part A (Neutral base) 13.43 kg Pigment Pack (sold separately) 2.37 kg Part B (Hardener) 4.2 kg Part A + Pigment Pack + Part B 20 kg
Shelf Life	24 months from date of production
Storage Conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +10 °C and +30 °C.
Appearance / Colour	Part A (Neutral base) Liquid / Biege Part B (Hardener) Liquid / Transparent to Light Yellow Pigment Pack * Paste / Various colour shades * Pigment Pack: Sikafloor®-264 HC N colour component is available separately in a number of colour shades. Please consult with Sika representative for more details. **IMPORTANT** Applied colours selected from colour charts will be approximate. **IMPORTANT** Colour deviations may occur due to filling with quartz sand. **IMPORTANT** For colour matching: Apply colour sample and confirm selected colour under real lighting conditions. **IMPORTANT** When product is exposed to direct UV exposure (sun, lamp, skylight, etc.), there may be some discolouration and colour variation, this has no influence on the function and performance of the floor finish. Use of clear UV resistant top coat may not prevent discoloration of underlying coatings.
Density	Part A+B mixed ~1.45 kg/L (EN ISO 2811-1) Part A ~1.58 kg/L Part B ~1.02 kg/L Pigment Pack ~1.70 kg/L (EN ISO 2811-1) All density values at +27 °C.
Solid content by weight	100 %
Solid content by volume	100 %

TECHNICAL INFORMATION

Shore D Hardness	~76 (7 days, +23 °C)	(ASTM D2240)
Abrasion Resistance	~35 mg (CS-10/1000/1000) (7 days, +23 °C)	(ASTM D4060)
Compressive Strength	~53 N/mm² (28 days, +23 °C, A+B : Quartz sand = 1 : 0.9)	(EN 196-1)
Tensile Strength in Flexure	~20 N/mm² (28 days, +23 °C, A+B : Quartz sand = 1 : 0.9)	(EN 196-1)
Tensile Adhesion Strength	> 1.5 N/mm² (failure in concrete)	(EN 1542)

Temperature Resistance

Exposure*	Dry heat
Permanent	+50 °C
Short-term max. 7 days	+80 °C
Short-term max. 12 hours	+100 °C

Short-term moist/wet heat* up to +80 °C where exposure is temporary (steam cleaning etc.).
*No simultaneous chemical and mechanical exposure and only in combination with Sikafloor® systems as a broadcast system with approx. 3–4 mm thickness.

Chemical Resistance

Resistant to many chemicals. Contact Sika Technical Services for additional information.

SYSTEM INFORMATION

Systems

Sikafloor® MultiDur ES-05 RC AP /-05 AP:

Primer	1 × Sikafloor®-264 HC N
Coating	1–2 × Sikafloor®-264 HC N

Sikafloor® MultiDur ET-05 AP:

Primer	1 × Sikafloor®-264 HC N
Coating	1 × Sikafloor®-264 HC N + Sika® Extender T

Sikafloor® MultiDur ET-05 HSR AP (improved slip resistance):

Primer	1 × Sikafloor®-264 HC N
Coating	1 × Sikafloor®-264 HC N + Sika® Extender T + Sikadur®-508

Sikafloor® MultiDur EB-10 AP:

Primer	1 × Sikafloor®-161 HC
Medium broadcast	Sikadur®-508
Top coat	1 × Sikafloor®-264 HC N

Sikafloor® MultiDur ES-10 AP :

Primer	1 × Sikafloor®-161 HC
Wearing course	1 × Sikafloor®-264 HC N + Sikadur®-508

IMPORTANT
Refer to the respective System Data Sheet for detailed information.

APPLICATION INFORMATION

Mixing Ratio

Part A + Pigment Pack : Part B = 79 : 21 (by weight)

Consumption

Sikafloor® MultiDur® ES-05 RC AP:

Layer	Product	Consumption
Primer	Sikafloor®-264 HC N	0.30–0.50 kg/m²
Roller coating	Sikafloor®-264 HC N	0.35–0.50 kg/m²

Sikafloor® MultiDur® ES-05 AP:

Layer	Product	Consumption
Primer	Sikafloor®-264 HC N	0.30–0.50 kg/m²
500 micron self-smoothing	Sikafloor®-264 HC N	0.70–0.80 kg/m²

Sikafloor® MultiDur® ET-05 AP:

Layer	Product	Consumption
Primer	Sikafloor®-264 HC N	0.30–0.50 kg/m²
Texture Coating	Sikafloor®-264 HC N + 1.5–3 % Sika® Extender T	0.55–0.70 kg/m²

Sikafloor® MultiDur® ET-05 HSR AP (Improved slip resistance):

Layer	Product	Consumption
Primer	Sikafloor®-264 HC N	0.30–0.50 kg/m²
Texture Coating	Sikafloor®-264 HC N+ 1.5–3 % Sika® Extender T + 10 % Sikadur®-508	0.70–0.90 kg/m²

Sikafloor® MultiDur® EB-10 AP:

Layer	Product	Consumption
Primer	Sikafloor®-264 HC N	0.70 kg/m²
Medium Broadcast	Sikadur®-508	2.00 kg/m²
Top Coat	Sikafloor®-264 HC N	0.70 kg/m²

Sikafloor® MultiDur® ES-10 AP:

Layer	Product	Consumption
Primer	Sikafloor®-161 HC	0.30–0.50 kg/m²
Self-smoothing + Filler	Sikafloor®-264 HC N + Sikadur®-508	0.90 kg/m² + 0.40 kg/m²

Levelling option for all above System:

Layer	Product	Consumption
Levelling layer	Sikafloor®-161 HC	Refer to PDS of Sikafloor®-161 HC

These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level and wastage etc.

Product Temperature

18–24 °C, pre-condition material for at least 24 hours

Ambient Air Temperature

+10 °C min. / +35 °C max.

Relative Air Humidity

80 % max.

Dew Point

Beware of condensation.
The substrate and uncured floor must be at least +3 °C above dew point to reduce the risk of condensation or blooming on the floor finish. Low temperatures and high humidity conditions increase the probability of blooming.

Substrate Temperature

+10 °C min. / +35 °C max.

Substrate Moisture Content

≤ 4 % parts by weight
The following test methods can be used: Sika®-Tramex meter, CM-measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).

Pot Life

Temperature	Time
+10 °C	~50 minutes
+20 °C	~40 minutes
+30 °C	~30 minutes

Waiting Time / Overcoating

Before applying Sikafloor®-264 HC N on Sikafloor®-161 HC allow:

Substrate temperature	Minimum	Maximum
+10 °C	24 hours	3 days
+20 °C	12 hours	2 days
+30 °C	08 hours	1 day

Before applying Sikafloor®-264 HC N on Sikafloor®-264 HC N allow:

Substrate temperature	Minimum	Maximum
+10 °C	30 hours	3 days
+20 °C	24 hours	2 days
+30 °C	16 hours	1 day

Note: Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

Applied Product Ready for Use

Temperature	Foot traffic	Light traffic	Full cure
+10 °C	~72 hours	~6 days	~10 days
+20 °C	~24 hours	~4 days	~07 days
+30 °C	~18 hours	~2 days	~05 days

Note: Times are approximate and will be affected by changing ambient conditions.

BASIS OF PRODUCT DATA

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

FURTHER INFORMATION

- Sika Method Statement: Evaluation and Preparation of Surfaces for Flooring Systems
- Sika Method Statement: Mixing & Application of Flooring Systems
- Sika Method Statement: Sikafloor®-Cleaning Regime
- System Data Sheet: Sikafloor® MultiDur Systems

IMPORTANT CONSIDERATIONS

- Do not apply Sikafloor®-264 HC N on substrates with rising moisture.
- Do not apply while ambient and substrate temperatures are rising, as pinholes may occur. Ensure there is no vapor drive at the time of application. Refer to ASTM D4263, may be used for a visual indication of vapor drive.
- Do not apply Sikafloor®-264 HC N to concrete substrate containing aggregates susceptible to ASR (Alkali Silica Reaction) due to risk of natural alkali redistribution below the Sikafloor®-264 HC N after application. If concrete substrate has or is suspected to have ASR (Alkali Silica Reaction) present, do not proceed. Consult with design professional prior to use.
- Do not blind the primer.
- Freshly applied Sikafloor®-264 HC N must be protected from damp, condensation and water for at least 72 hours.
- For areas with limited exposure and normally absorbent concrete substrates priming with Sikafloor®-161 HC is not necessary for roller or textured coating systems.
- Beware of air flow and changes in air flow. This may lead to introduction of dust, debris, and particles, etc. resulting in surface imperfections and other defects.
- For roller / textured coatings, uneven substrates as well as inclusions of dirt cannot and must not be covered by thin sealer coats. Therefore both substrate and adjacent areas must always be prepared and cleaned thoroughly prior to application.
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
- Any aggregate used with Sikafloor® systems must be non-reactive and oven dried. For best results, use Sika® Quartz product range.
- Use Sikafloor®-264 HC N colour component for best performance.
- Typically not recommended for exterior slabs on grade where freeze/thaw conditions may exist.
- For consistent colour matching, ensure the Sikafloor®-264 HC N in each area is applied from the same control batch numbers.
- Under certain conditions, underfloor heating combined with high point loading, may lead to indentations in the resin.
- If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO_2 and H_2O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.
- Seal / Top coat consumption will vary depending on sand granulometry.

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.
- Substrates must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.
- Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface gripping surface profile suitable for the product thickness.
- High spots can be removed by 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.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush or vacuum extraction equipment.

MIXING

Coatings

1. Prior to mixing all parts, mix separately Part A (resin) using an electric single paddle mixer (300–400 rpm) or other similar equipment. Mix liquid and all the col-

oured pigment until a uniform colour / mix has been achieved.
2. Add Part B (hardener) to Part A and mix Part A + B continuously for 3.0 minutes until a uniformly coloured mix has been achieved.
3. To ensure thorough mixing pour materials into a clean container and mix again for at least 1.0 minute to achieve a smooth consistent mix. Excessive mixing must be avoided to minimise air entrainment.
4. During the final mixing stage, scrape down the sides and bottom of the mixing container with a straight edge trowel or spatula at least once to ensure complete mixing. Mix full units only. Mixing time for A+B = ~4.0 minutes.

Self-smoothing resin

1. Prior to mixing all parts, mix separately Part A (resin) using a low speed single paddle electric stirrer (300–400 rpm).
2. Add Part B (hardener) to Part A and mix part A + B continuously for 3.0 minutes until a uniform mix has been achieved. When Parts A and B have been mixed, using an electric double paddle mixer (> 700 W), pan type revolving, forced action mixer or other similar equipment (free fall mixers must not be used) gradually add the required granulometry of dried quartz sand and if required Sika® Extender T.
3. Mix for a further 2.0 minutes until a uniform mix has been achieved.
4. To ensure thorough mixing, pour materials into another container and mix again to achieve a smooth consistent mix. Excessive mixing must be avoided to minimise air entrainment.
5. During the final mixing stage, scrape down the sides and bottom of the mixing container with a flat or straight edge trowel at least once to ensure complete mixing. Mix full units only. Mixing time for A+B+Sika® Quartz sand = ~5.0 minutes.

APPLICATION

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

- Prior to application, confirm substrate moisture content, relative air humidity and dew point. If > 4 % pbw moisture content, Sikafloor® EpoCem® may be applied as a T.M.B. (temporary moisture barrier) system.
- Refer to the individual System Data Sheet for the applications required.

Primer

1. Pour mixed Sikafloor®-161 HC primer onto the prepared substrate and apply by brush, roller or squeegee (most preferred) then back roller in two directions at right angles to each other.
- Ensure a continuous, pore free coat covers the substrate. If necessary, apply two priming coats.
- Confirm waiting /overcoating time has been achieved before applying subsequent products. Refer to individual primer Product Data Sheet.

Levelling

1. Rough surfaces must be levelled first using Sikafloor®-161 HC levelling mortar.
- Confirm waiting /overcoating time has been achieved before applying subsequent products. Refer to individual Product Data Sheet.

Coating

1. Apply Sikafloor®-264 HC N onto the prepared substrate using a short-piled roller, brush or squeegee in two directions at right angles to each other.
- A seamless finish can be achieved if a ‘wet’ edge is maintained during application.

Self-smoothing wearing layer

1. Pour mixed Sikafloor®-264 HC N onto prepared substrate and spread evenly using a suitable trowel or pin leveller to the required thickness.
2. Spike roller immediately in two directions at right angles to each other to remove trowel marks, aid air release, ensure an even thickness and obtain the required surface finish.
- A seamless finish can be achieved if a ‘wet’ edge is maintained during application.

Slip-resistant broadcast layer

1. Pour mixed Sikafloor®-264 HC N onto prepared substrate and spread evenly using a suitable trowel or pin leveller to the required thickness.
2. Spike roller immediately in two directions at right angles to each other to aid air release and ensure an even thickness.
3. After about 15 minutes (at +20 °C) but before 30 minutes (at +20 °C), broadcast with quartz sand or silicon carbide, at first lightly and then to excess to produce an even distribution surface profile.
4. Allow Sikafloor®-264 HC N to initially cure and remove all loose sand by vacuum extraction equipment.

Seal / Top coat

1. After waiting the required overcoating time / curing, pour the mixed Sikafloor®-264 HC N onto the slip resistant broadcast layer and spread evenly using a squeegee at the required consumption rate to completely encapsulate the sand.
2. Then using a short-piled roller, back roller in two directions at right angles to each other.
- A seamless finish can be achieved if a ‘wet’ edge is maintained during application.

CLEANING OF TOOLS

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

MAINTENANCE

CLEANING

To maintain the appearance of the floor after application, Sikafloor®-264 HC N must have all spillages removed immediately and must be regularly cleaned using rotary brush, mechanical scrubbers, scrubber dryer, high pressure washer, wash and vacuum techniques etc. using suitable detergents and waxes.
Refer to Sika Method Statement: Sikafloor®-Cleaning Regime.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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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