Construction

Sikafloor®-262 AS Thixo

2-part electrostatically conductive textured epoxy coating

Product Description

Sikafloor®-262 AS Thixo is a two part, textured, high-build coloured epoxy resin.

Uses

- Decorative and protective electrostatically conductive textured coating for concrete or cement screeds with normal to medium heavy wear.
- Suitable as wearing course in various industries, such as automotive, electronic and pharmaceutical manufacturing as well as for storage facilities and warehouses
- Particularly suitable for areas with sensitive electronic equipment e.g. CNC machinery, computer rooms, aircraft maintenance sheds, battery-charging rooms and areas subject to high explosion risks etc.

Characteristics / Advantages

- Electrostatically conductive
- Good chemical and mechanical resistance
- Slip resistance
- Easy to clean
- Economical
- Liquid proof
- Solvent-free

Test

Approval / Standards

Conforms to the requirements of DIN IEC 61340-4-1 (Internal Test).

Product Data

Form

Appearance / Colours

Resin - part A: coloured, liquid
Hardener - part B: transparent, liquid

Almost unlimited choice of colour shades may be supplied subject to a minimum order of 700 kg.

Due to the nature of the carbon fibres providing the conductivity, it is not possible to achieve exact colour matching. With very bright colours (such as yellow and orange), this effect is increased. Under direct sun radiation there may be some discolouration and colour deviation, this has no influence on the function and performance of the coating.

Packaging	Part A: 22 kg containers Part B: 4 kg containers Part A+B: 26 kg ready to mix units

Storage

Storage Conditions / Shelf-Life	12 months from date of production if stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5 °C and +30 °C.

Technical Data

Chemical Base	Epoxy
Density	Part A: ~ 1.70 kg/l (DIN EN ISO 2811-1) Part B: ~ 1.03 kg/l Mixed resin: ~ 1.5 kg/l All Density values at +23 °C.
Solid Content	~ 100% (by volume) / ~ 100% (by weight)
Electrostatic Behaviour	Resistance to earth R_E < 10^6 Ω (IEC 61340-4-1; EN 1081)

Mechanical / Physical Properties

Bond Strength	> 1.5 N/mm² (failure in concrete) (ISO 4624)
Shore D Hardness	81 (3 days / +23 °C) (DIN 53 505)
Abrasion Resistance	65 mg (CS 10/1000/1000) (8 days / +23 °C) (DIN 53 109 (Taber Abrader Test))

Resistance

Chemical Resistance	Resistant to many chemicals. Please ask for a detailed chemical resistance table.

Thermal Resistance

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

Short-term moist/wet heat* up to +80 °C where exposure is only occasional (i.e. during steam cleaning etc.)

*No simultaneous chemical and mechanical exposure.

System Information

System Structure	Primer: 1 x Sikafloor®-156 Earthing connection: Sikafloor® Earthing Kit Conductive coat: 1 x Sikafloor®-220 W Conductive Conductive wearing course: 1 x Sikafloor®-262 AS Thixo Note: This system configurations must be fully complied with as described and may not be changed.

Application Details

Consumption / Dosage

Coating System	Product	Consumption
Primer	Sikafloor®-156	0.3 - 0.5 kg/m²
Levelling (optional)	Sikafloor®-156 mortar	Refer to PDS of Sikafloor®-156
Conductive coat	Sikafloor®-220 W Conductive	0.08 - 0.10 kg/m²
Wearing course textured (Film thickness ~ 0.5 mm)	Sikafloor®-262 AS Thixo	0.75 kg/m²

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

Substrate Quality

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.

Substrate Preparation

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.

Application Conditions / Limitations

Substrate Temperature

+10°C min. / +30°C max.

Ambient Temperature

+10°C min. / +30°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).

Relative Air Humidity

80% r.h. 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.

Application Instructions

Mixing

Part A : part B = 84 : 16 (by weight)

Mixing Time

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.

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 Tools

Sikafloor®-262 AS Thixo must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment.

Application Method / Tools

Prior to application, confirm substrate moisture content, relative humidity and dew point.

If > 4% pbw moisture content, Sikafloor® EpoCem® may be applied as a T.M.B. (temporary moisture barrier) system.

Levelling:
Rough surfaces need to be levelled first because varying thickness of the Sikafloor®-262 AS Thixo wearing course will influence the conductivity. Therefore use Sikafloor®-156 levelling mortar (see PDS).

Placing of earthing plates:
See below “Notes on Application / Limits”.

Application of Sikafloor® conductive coat:
See PDS of Sikafloor®-220 W conductive.

Wearing course textured:
Sikafloor®-262 AS Thixo is applied with a serrated trowel and then back-rolled (crosswise) with a textured roller.

Cleaning of Tools

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

Potlife

Temperatures	Time
+10℃	~ 40 minutes
+20℃	~ 25 minutes
+30℃	~ 15 minutes

Waiting Time / Overcoating

Before applying Sikafloor®-262 AS Thixo on Sikafloor®-220 W Conductive allow:

Substrate temperature	Minimum	Maximum
+10℃	26 hours	7 days
+20℃	17 hours	5 days
+30℃	12 hours	4 days

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

Notes on Application / Limitations

This product may only be used by experienced professionals.

Do not apply Sikafloor®-262 AS Thixo on substrates with rising moisture.

Do not blind the primer.

Freshly applied Sikafloor®-262 AS Thixo must be protected from damp, condensation and water for at least 24 hours.

Avoid puddles on the surface with the primer.

Only starts application of Sikafloor® conductive coat after the priming coat has dried tack-free all over. Otherwise there is a risk of wrinkling or impairing of the conductive properties.

Excessive thickness (more than 0.8 kg/m²) causes reduced conductivity.

Before the application of a conductive flooring system, a reference area has to be applied. This reference area must be assessed and accepted from the contractor/client. The desired result and method of conductivity measurement must be stated in the Specification and Method Statement. The number of conductivity measurements is strongly recommended to be as shown in the table below:

Applied floor area	Number of measurements
< 10 m²	1 measurement / m²
10 - 100 m²	10 - 20 measurements
> 100 m²	10 measurements / 100 m²

The measuring points must have a distance of at least 50 cm to the next measuring point. In case of a measurement lower/higher than required, an additional measurement has to be carried out within 50 cm of the point with the insufficient result.

If several measuring points (R_E) of the final floor are > 1 • 10^6 Ω (in case of electrostatically conductive floorings (ECF)), but the walking test (< 100 V, IEC 61340-4-5, IEC 61340-5-1, ESD STM 07.2-1999) and/or the system test (< 35 M Ω, IEC 61340-5-1) results are within the requirements, the total area is acceptable.

Placing of earthing plates:
If the Sikafloor® Earthing Kit conductor system (system of anchored brass-plates with stable earth connection) is applied, the instructions for use have to be followed exactly. Every earthing point is able to conduct 100 m². Ensure the longest distance of each point in the area is max. 10 m to the next earthing point. Clean the earthing spots carefully. For longer distances, additional earthing plates have to be placed. If site conditions do not allow placing of additional earthing points, longer distances (>10 m) have to be bridged with copper tapes. The earthing spots have to be connected to the ring-mains. This work must be executed and approved by an electrical engineer and in accordance with any relevant regulations

Numbers of earth connections:
Per room al least 2 earthing points. The optimum number of earth connections depends on the local conditions and should be specified with documents.

The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking - reducing or breaking conductivity.

For exact colour matching, ensure the Sikafloor®-262 AS Thixo in each area is applied from the same control batch numbers.

Under certain conditions, underfloor heating or high ambient temperatures combined with high point loading, may lead to imprints 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.

Curing Details

Applied Product ready for use

Temperature	Foot traffic	Light traffic	Full cure
+10℃	~ 30 hours	~ 5 days	~ 10 days
+20℃	~ 24 hours	~ 3 days	~ 7 days
+30℃	~ 16 hours	~ 2 days	~ 5 days

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

Cleaning / Maintenance

Methods

To maintain the appearance of the floor after application, Sikafloor®-262 AS Thixo 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.

Value Base

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.

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.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

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.

Construction

CE Labelling

The harmonized European Standard EN 13 813 „Screed material and floor screeds - Screed materials - Properties and requirements“ specifies requirements for screed materials for use in floor construction internally.

Structural screeds or coatings, i.e. those that contribute to the load bearing capacity of the structure, are excluded from this standard.

Resin floor systems as well as cementitious screeds fall under this specification. They have to be CE-labelled as per Annex ZA. 3, Table ZA.1.5 and 3.3 and fulfil the requirements of the given mandate of the Construction Products Directive (89/106):

CE	
Sika Limited Watchmead Welwyn Garden City Hertfordshire AL7 1BQ United Kingdom	
04 [1)]	
EN 13813 SR-B1,5-AR1-IR 4	
Resin screed/coating for indoors in buildings (systems as per Product Data Sheet)	
Reaction to fire:	E_{fl} [2)]
Release of corrosive substances (**S**ynthetic **R**esin Screed):	SR
Water permeability:	NPD [2)]
Abrasion **R**esistance:	AR1 [4)]
Bond strength:	B 1,5
Impact **R**esistance:	IR 4
Sound insulation:	NPD
Sound absorption:	NPD
Thermal resistance:	NPD
Chemical resistance:	NPD

[1)] Last two digits of the year in which the marking was affixed.

[2)] In Germany, DIN 4102 still applies. Passed class B2.

[3)] No performance determined.

[4)] Not broadcast with sand.

EU Regulation 2004/42

VOC - Decopaint Directive

According to the EU-Directive 2004/42, the maximum allowed content of VOC (Product category IIA / **j** type **sb**) is 550 / 500 g/l (Limits 2007 / 2010) for the ready to use product.

The maximum content of **Sikafloor®-262 AS Thixo** is < 500 g/l VOC for the ready to use product.

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ISO 14001 ISO 9001