

Sikafloor®-162

2-Part Epoxy Binder for Mortars, Screeds and Seal Coats

Product Description Sikafloor®-162 is a two part solvent free, low yellowing, low viscous, transparent epoxy resin.

Uses

- Transparent binder for coloured quartz mortars and screeds
- Transparent sealer coat for broadcast colour quartz mortar screeds and smooth coatings broadcast e.g. with coloured chips
- Suitable for normal up to medium heavy mechanical loading
- Particularly used in the food and pharmaceutical industries, for show rooms and workshops etc.

Characteristics / Advantages

- Transparent
- Low yellowing
- Good mechanical and abrasion resistance
- Solvent free
- Low viscous
- Easy application
- Multi-purpose binder

Product Data

Form

Appearance / Colours Resin - part A: transparent, liquid
Hardener - part B: yellowish, liquid
Under UV-exposure some discolouration (yellowing) will occur, however this has no influence on the function and performance of the coating.

Packaging

| | |
|-----------|-------------------|
| Part A: | 6.7 kg containers |
| Part B: | 3.3 kg containers |
| Part A+B: | 10 kg unipacks |

Bulk packaging:
Part A: 200 kg drums
Part B: 200 kg drums

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. Protect from direct sunlight.

Technical Data

Chemical Base Epoxy

| | | | |
|----------------|------------------------------|--------------|---------------------|
| Density | Part A: | ~ 1.1 kg/ltr | (DIN EN ISO 2811-1) |
| | Part B: | ~ 1.0 kg/ltr | |
| | Mixed resin: | ~ 1.1 kg/ltr | |
| | Mortar screed: | ~ 2.0 kg/ltr | |
| | All Density values at +23°C. | | |

Mechanical / Physical Properties

| | | |
|-----------------------------|---|-------------|
| Compressive Strength | <i>Mortar (mixing ratio 1 : 10)</i> ~ 75 N/mm ² (7 days / +23°) | (EN-196-1) |
| Flexural Strength | <i>Mortar (mixing ratio 1 : 10)</i> ~ 20 N/mm ² (7 days / +23°) | (EN-196-1) |
| Shore Hardness | 83 (7days / +23°C) | (DIN 53505) |
| Abrasion Resistance | 47 mg (CS 10/1000/1000) (8 days / +23°C) (DIN 53 109 (Taber Abrader Test)) | |

Resistance

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

Thermal Resistance

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

Systems Structure

Terrazzo (up to 10 mm)

Primer: 1 x Sikafloor®-156 lightly broadcast with quartz sand (0.4 - 0.7 mm)
 Mortar: 1 x **Sikafloor®-162** + coloured quartz sand (0.3 - 1.8 mm)
 Impregnation: 1 x **Sikafloor®-162** (optional)
 Seal coat: 1 x **Sikafloor®-162**

Suitable sand mixture (typical example):

| Sikafloor®-162 | Grading Fraction | | | | |
|------------------------|-------------------------------|-------------------------------|----------------------------------|-----------------------------------|-------------------------------|
| | 0.3 - 0.8mm | 0.6 - 1.2 mm | | 1.0 - 1.8 mm | |
| 1 ppw | 4 ppw | 3 ppw | 1 ppw | | 2 ppw |
| pre-mixed epoxy binder | coloured quartz sand white | coloured quartz sand white | 70% coloured quartz sand blue | 30% coloured quartz sand black | coloured quartz sand white |

Swedish Terrazzo (~ 6 mm)

Primer: 1 x Sikafloor®-156 lightly broadcast with quartz sand (0.4 - 0.7 mm)
 Mortar: 1 x **Sikafloor®-162** + coloured quartz sand (0.3 - 3.0 mm) + quartz flour
 Impregnation: 1 x **Sikafloor®-162** (optional)
 Seal coat: 1 x **Sikafloor®-162**

Compact floor screed (~ 3 mm)

Primer: 1 x Sikafloor®-156 lightly broadcast with quartz sand (0.4 - 0.7 mm)
 Mortar: 1 x **Sikafloor®-162** + coloured quartz sand (0.7 - 1.2 mm) + quartz flour
 Broadcast : coloured quartz sand (0.7 - 1.2 mm)
 Seal coat: 1 x **Sikafloor®-162**

Seal coat for broadcast (to excess) coatings:

Seal coat: 1 x **Sikafloor®-162**

Application Details

Consumption / Dosage

| Coating System | Product | Consumption |
|--|--|-----------------------------|
| Primer | Sikafloor®-156 | 0.3 - 0.5 kg/m ² |
| Broadcast | Quartz sand (0.4 - 0.7 mm) | 0.8 - 1.0 kg/m ² |
| Terrazzo mortar | 1 pbw Sikafloor®-162 + 10 pbw coloured quartz sand (0.3 - 1.8 mm) | ~ 2.0 kg/m ² /mm |
| Swedish Terrazzo mortar | 1 pbw Sikafloor®-162 + 7.5 pbw coloured quartz sand (0.3 - 3.0 mm) + 0.5 pbw quartz flour | ~ 2.0 kg/m ² /mm |
| Compact floor screed | 1 pbw Sikafloor®-162 + 0.5 pbw coloured quartz sand (0.7 - 1.2 mm) + 0.5 pbw quartz flour | ~ 2.0 kg/m ² /mm |
| Broadcast | coloured quartz sand (0.7 - 1.2 mm) | ~ 4 kg/m ² |
| Impregnation | Sikafloor®-162 | ~ 1.4 kg/m ² |
| Seal coat for broadcast * surfaces / mortars | Sikafloor®-162 | 0.5 - 0.7 kg/m ² |

Please note:

In case of application as transparent top coat with higher consumption as mentioned above, a haze surface and/or a stronger visible yellowing could be possible after hardening.

* Broadcasting with quartz sand or coloured chips always to excess.

These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or 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 a profiled open textured surface. Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed. Repairs to substrate, filling of blowholes/voids and surface levelling can 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 up 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 Humidity | ≤ 4% moisture content. Test method: Sika-Tramex meter or CM - measurement. 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 = 67 : 33 (by weight) |
| Mixing Time | Prior to mixing stir part A mechanically. When all of part B has been added to part A, continuously mix 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 minimize air entrainment. For the preparation of mortars add the premixed Sikafloor®-162 to the aggregates and mix until a uniform mix has been achieved. |
| Mixing Tools | Sikafloor®-162 must be mechanically mixed using an electric power stirrer (300 - 400 rpm) or other suitable equipment. For the preparation of mortars use a forced action mixer of rotating pan, paddle or trough type. Free fall mixers must not be used. |

Application Method / Tools

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.

Primer:

Make sure that a continuous, pore free coat covers the substrate. If necessary, apply two priming coats. Apply Sikafloor®-156 by brush, roller or squeegee.

Terrazzo mortar / compact screed:

Apply the mortar/screed evenly using leveling boards and guide rails if necessary. After a short waiting time compact and smoothen the mortar with a trowel or Teflon coated powerfloat (usually 20 - 90 rpm).

Impregnation:

Uniformly spread **Sikafloor®-162** by using a trowel or squeegee and back-roll with a short pile nylon roller.

Seal coat:

Uniformly spread **Sikafloor®-162** by using a short pile nylon roller or a squeegee (back-rolling is necessary).

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 immediately after use. Hardened / cured material can only be mechanically removed.

Potlife

| Temperatures | Time |
|--------------|--------------|
| +10°C | ~ 90 minutes |
| +20°C | ~ 50 minutes |
| +30°C | ~ 30 minutes |

Waiting Time / Overcoatability Before applying Sikafloor®-162 on Sikafloor®-156 allow:

| Substrate temperature | Minimum | Maximum |
|-----------------------|----------|---------|
| +10°C | 24 hours | 4 days |
| +20°C | 12 hours | 2 days |
| +30°C | 6 hours | 1 day |

Before applying Sikafloor®-162 on Sikafloor®-162 allow:

| Substrate temperature | Minimum | Maximum |
|-----------------------|----------|---------|
| +10°C | 48 hours | 4 days |
| +20°C | 24 hours | 2 days |
| +30°C | 12 hours | 1 day |

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

Notes on Application / Limitations

Do not apply **Sikafloor®-162** on substrates in which significant vapour pressure may occur.

Freshly applied **Sikafloor®-162** should be protected from damp, condensation and water for at least 24 hours.

Avoid puddles on surface with the primer.

Trials should be carried out on mortar mixes to confirm and evaluate suitable aggregate colour blends and size distribution (granulometry).

Tools

| For use at | Tool | Manufacturer e.g. |
|------------|--|--|
| Mixing | Zyklos pug mill mixer ZZ 75 HE / ZZ 150 HE | Zyklos Mischtechnik GmbH, Ickerrottweg 30 DE-45665 Recklinghausen, Germany, www.Zyklos.de Phone:+49-2361/98881 Fax:+49-2361/9888733 |
| | Compulsory mixer Collomatic 65/2K-3 | Collomix, Rühr- und Mischgeräte GmbH Daimlerstrasse 9, DE 85080 Gaimersheim, Germany www.collomix.de Phone:+49-8458/32980 Fax:+49-8458/329830 |
| Spreading | spreader sled | Metallbau Peter Mayer, Daimlerstrasse 3, DE-73333 Gingen/Fils, Germany Phone:+49-7162/931616 Fax:+49-7162/931618 |
| Levelling | power float EFS-180 E with plastic blades | Erwin Früh GmbH, Industriestrasse 38 DE-73614 Schorndorf, Germany www.frueh-maschinen.de Phone:+49-7181/929732 Fax:+49-7181/929733 |
| Coating | Roller, trowel, squeegee | PPW-Polyplan-Werkzeuge GmbH, Phone: +49 40/5597260, www.polyplan.com. |

The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.

Curing Details

Applied Product ready for use

| Temperatures | Foot traffic | Light traffic | Full cure |
|--------------|--------------|---------------|-----------|
| +10°C | ~ 30 hours | ~ 5 days | ~ 10 days |
| +20°C | ~ 24 hours | ~ 3 days | ~ 7 days |
| +30°C | ~ 16 hours | ~ 2 days | ~ 5 days |

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

Notes

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.

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®-162**, is < 500 g/l VOC for the ready to use product.

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 should 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



Sika Gulf B.S.C (c)
Bldg. 925, Road 115, Sitra Area 601
P.O. Box 15776
Adliya, Kingdom of Bahrain
TEL: +973 17738 188
Fax: +973 17732 476
E-mail: sika.gulf@bh.sika.com
Web: <http://www.sika.com.bh>

