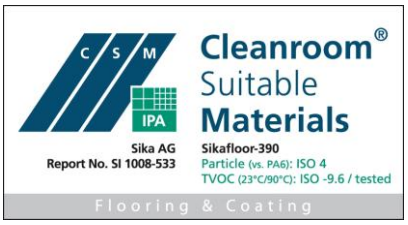

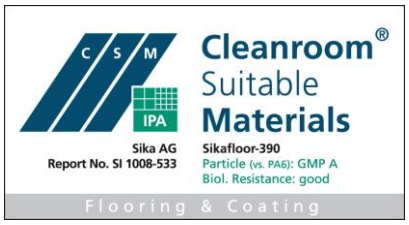

Construction

Sikafloor®-390

2-part flexible and chemically resistant epoxy coating

Product Description

Sikafloor®-390 is a two part, flexible, coloured epoxy resin with high chemical resistance.

"Total solid epoxy composition acc. to the test method Deutsche Bauchemie e.V. (German Association for construction chemicals)"

Uses

- Crack-bridging and chemically resistant coating for concrete and screed surfaces in bund areas for the protection against water contaminating liquids (according to the product chemical resistance table)

Characteristics / Advantages

- High chemical resistance
- Crack-bridging
- Liquid proof

Test

Approval / Standards

Particle emission certificate Sikafloor-390 CSM Statement of Qualification - ISO 14644-1, class 4 - Report No. SI 1008-533 and GMP class A, Report No. SI 1008-533.

Outgassing emission certificate Sikafloor-390 CSM Statement of Qualification - ISO 14644-8, class -9.6 - Report No. SI 1008-533.

Good biological Resistance in accordance with ISO 846, CSM Report No. 1008-533

Approval as “Water protection system”, Z-59.12-107, DIBt, Germany

Testing of Paint Compatibillity in acc. to BMW-Standart 09-09-132-5, Polymer Institute, Test Report P 5541, August 2008

2-part flexible and chemically resistant epoxy coating according to EN 1504-2: 2004 and EN 13813:2002, DoP 02 08 01 02 020 0 000001 2017, certified by Factory Production Control Body No. 0921, certificate 2017, and provided with the CE-mark

Product Data

Form

Appearance / Colours

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

Almost unlimited choice of colour shades.

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: 21.25 kg containers
Part B: 3.75 kg containers
Part A+B: 25 kg ready to mix units

Storage

Storage Conditions / Shelf-Life	24 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: ~ 1.73 kg/l (DIN EN ISO 2811-1) Part B: ~ 1.05 kg/l Mixed resin: ~ 1.6 kg/l All Density values at +23°C
Solid Content	~ 100% (by volume), ~100% (by weight)

Mechanical / Physical Properties

Flexural Strength	~ 10 N/mm^2 (8 days / +23°C) (DIN 53455)
Bond Strength	> 1.5 N/mm² (failure in concrete) (ISO 4624)
Shore D Hardness	60 (after 14 days / +23°C) (DIN 53 505)
Elongation at Break	~ 20% (8 days / +23°C) (DIN 53455)
Abrasion Resistance	75 mg (CS 10/1000/1000) (8 days / +23°C) (DIN 53 109) (Taber Abrader Test))
Crack Bridging Capacity	~ 0.20 mm, static 2 years ZG (German Standard for water protection)

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.

USGBC	Sikafloor®-390 conforms to the requirements of LEED
LEED Rating	EQ Credit 4.2: Low-Emitting Materials: Paints & Coatings SCAQMD Method 304-91 VOC Content < 100 g/l

System Information

System Structure

Self-smoothing system (horizontal areas):
Primer: 1 x Sikafloor®-161
Screed: 1 x Sikafloor®-390

Smooth wearing course (vertical areas):
Primer: 1 x Sikafloor®-161
Screed: 2 x Sikafloor®-390 + Extender T

Broadcast system with slip resistance (rigid):
Primer: 1 x Sikafloor®-161
Wearing course: 1 x Sikafloor®-390 broadcast to excess with Silicon carbide or quartz sand
Seal coat: 1 x Sikafloor®-390 + 5 wt.-% Thinner C

Broadcast system with slip resistance (crack-bridging):
Primer: 1 x Sikafloor®-161
Wearing course(1st coat): 1 x Sikafloor®-390
Wearing course (2nd coat): 1 x Sikafloor®-390 broadcast to excess with Silicon carbide or quartz sand
Seal coat: 1 x Sikafloor®-390 + 5 wt.-% Thinner C

Application Details

Consumption / Dosage

Coating System	Product	Consumption
Priming	Sikafloor®-161	0.3 - 0.5 kg/m²
Levelling (optional)	Sikafloor®-161mortar	Refer to PDS of Sikafloor®-161
Wearing course horizontal areas (1.8 - 2.8 mm)	Sikafloor®-390	1.6 kg/m²/mm
Wearing course vertical areas (Film thickness ~ 1.5 mm)	Sikafloor®-390 + 2.5 - 4 wt.-% Extender T	2 x 1.25 kg/m²
Wearing course with slip resistance (Film thickness ~ 2.5 mm)	Sikafloor®-390, broadcast to excess with Silicon Carbide 0.5 - 1.0 mm or quartz sand 0.4 - 0.7 mm	1.6 kg/m² Binder without filling Silicon Carbide 0.5 - 1.0 mm or quartz sand 0.4 - 0.7 mm (5-6 kg/m²)
Seal coat (for broadcast systems only)	Sikafloor®-390 + 5 wt.-% Thinner C	0.75 - 0.85 kg/m²

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/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.

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. Note: Low temperatures and high humidity conditions increase the probability of blooming.

Application Instructions

Mixing	Part A : part B = 85 : 15 (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®-390 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. *Self-smoothing system (horizontal areas):* Sikafloor®-390 is poured, spread evenly by means of a serrated trowel. Roll immediately in two directions with a spiked roller to ensure even thickness. Self-smoothing system *(vertical areas):* The first layer of Sikafloor®-390, mixed with 2.5 - 4 wt.-% Extender T, has to be applied by trowel. After curing, apply the second layer of Sikafloor®-390, mixed with 2.5 - 4% Extender T, by trowel. *Broadcast system with slip resistance:* Sikafloor®-390 is poured, spread evenly by means of a serrated trowel then blind the fresh layer with silicon carbide or quartz sand to excess. After final drying the surplus silicon carbide / quartz sand must be removed by brush and the surface must be vacuumed. The seal coat (Sikafloor®-390 + 5 wt.-% Thinner C) has to be applied evenly by short-piled roller or squeegee.

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°C	~ 60 minutes
+20°C	~ 30 minutes
+30°C	~ 10 minutes

Waiting Time / Overcoating

Before applying Sikafloor®-390 on Sikafloor®-156/-161 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®-390 on Sikafloor®-390 allow:

Substrate temperature	Minimum	Maximum
+10°C	48 hours	72 hours
+20°C	30 hours	48 hours
+30°C	20 hours	30 hours

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

Notes on Application / Limitations

Do not apply Sikafloor® -390 on substrates with rising moisture.

Do not blind the primer coat.

Freshly applied Sikafloor® -390 must be protected from damp, condensation and water for at least 24 hours.

Layer thickness of wearing layer: ~ 1.5 mm.

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

For exact colour matching, ensure the Sikafloor®-390 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°C	~ 48 hours	~ 6 days	~ 14 days
+20°C	~ 30 hours	~ 4 days	~ 10 days
+30°C	~ 20 hours	~ 3 days	~ 7 days

Note: Times are approximate and will be affected by changing ambient conditions. For traffic with solid / hard wheeled lift trucks allow 3 weeks curing time.

Cleaning / Maintenance

Methods	To maintain the appearance of the floor after application, Sikafloor®-390 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 shall 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.

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 500 g/l (Limit 2010) for the ready to use product. The maximum content of **Sikafloor®-390** is < 500 g/l VOC for the ready to use product.

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