

Sikafloor[®] 381

Highly chemical resistant coating

Product description: Self-smoothing 2-component binder based on epoxy resin for extremely high chemical resistance.

solvent-free according to ibh-recommendation

Fields of application: Technical wearing layer for very high chemical and high mechanical exposure in production and trade areas.

Properties:

- o outstanding chemical resistance
- o high mechanical resistance
- o impervious
- o abrasion resistant
- o quick curing
- o high compressive strength after 24 h already

Colour shades: Available in various colour shades as per our Sikafloor shade card (minimum quantities required for special shades).

Packaging: Sikafloor 381: 25 kg, 10 kg net.

Shelf life: In original sealed containers and in cool and dry environment approx. 2 years.

Product data.

Coating system/ material consumption:

System	Product	Consumption
priming	Sikafloor 156	0,3-0,5 kg/m ²
blinding	quartz sand 0,4-0,7 mm	0,8-1,2 kg/m ²
levelling (where necessary)	Sikafloor 156	see resp. data sheet
wearing layer	Sikafloor 381 filled with max. 20% quartz sand 0,1-0,3 mm	1,8 kg/m ² per 1 mm layer thickness

Layer thickness of wearing layer: 1,8 mm-max. 2,8 mm.

Mixing ratio: Sikafloor 381: 90 parts by weight component A
10 parts by weight component B.



Technical data:

type	testing standard	final curing	mean value
specific gravity (binder)	DIN 53217		1,6 kg/ltr.
solids content	DIN 53 216		approx. 100%
compressive strength	EN 196-1	24 h/23°C/50% r.h.	≥ 80 N/mm ²
flexural strength	EN 196-1	24 h/23°C/50% r.h.	≥ 55 N/mm ²
tensile strength	DIN 53 455	24 h/23°C/50% r.h.	≥ 45 N/mm ²

Resistance:

Minimum 42 days resistant at +20°C to the following water contaminating chemicals:

1. 3- and 4-Star petrol
2. jet fuel
3. fuel oil EL as per DIN 51 603 part 1 and diesel oil as per DIN 51 601
4. all hydrocarbons (incl. 1.-3.) exclud. 4 a
- 4 a. benzol and benzol containing mixtures
- 4 b. crude oil
5. alchoholes, glycolether
6. aliphatic halogen-hydrocarbons _ C2
- 6 a. all aliphatic halogen-hydrocarbons incl. 6 (incl. methylene chloride)
7. aliphatic ester and ketone
8. aliphatic aldehyde as long as these are not classified as flammable media
9. watery solution of organic acids up to 10%
10. mineral acids as well as alkaline hydrolysing salts watery solution (pH < 6) up to 20% concentration, except for hydrofluoric acid and oxidizing acids/salts, sulfuric acid up to 80%
11. anorganic lyes as well as alkaline hydrolysing salts in watery solutions (pH > 8) up to 20%, soda lye up to 50%
12. salt solutions with pH = 6-8.
13. amines
 - 35% by volume Triethynolamine
 - 30% by volume n-Butylamine
 - 35% by volume N.N-Dimenthylalaniline

- | | | |
|---|----|--|
| 14. watery solutions
organic Tenside | 1. | 3% Procetole KLC
2% Marlophene 89
95% Water |
| | 2. | 3% Texapone N 40
2% Marlipale 013/80
95% Water |

Additional tested resistance:
amonia solution 33% (7 days). Pure methanole. Sodiumhypochloride solution up to max. 20%., chromic acid 10%, hydrochloric acid 33%.

Attention: Areas where flammable liquids are stored must be coated with the electrostatically conductive Sikafloor 381 AS.

Hints on application.

Condition of substrate:

The substrate must be of sufficient strength (min. compressive strength 25 N/mm²). The surface must be even, fine-gripping, solid, dry (normal humidity < 4%) and free from loose and friable particles. The pull-off strength should not be below 1,5 Nmm².

Surface preparation:

Insufficient layers and oily contamination must be removed mechanically, e.g. by sandblasting or grinding. Priming and levelling with Sikafloor 156.

Mixing:

Prior to mixing stir component A mechanically. Mix component A + B intensively in the correct mixing proportions with an electric or pneumatic power stirrer (approx. 300-400 rpm).

Mixing time minimum 3 minutes until a homogeneous mixture is achieved. Fill mixed material into a clean container and mix again shortly.

Application method:

Sikafloor 381 is poured onto the horizontal surface, spread evenly by means of twinblade-trowel in the required layer thickness and ventilated by a spiked roller.

For inclined and vertical areas trowel application in two layers adding Extender T.

Ambient and surface temperature:

Min. +10°C (but at least 3°C upon dew point)
max. +30°C
Relative air humidity max. 80%.

Pot-life:

	+ 10 °C	+20 °C	+30 °C
Sikafloor 156	60 min.	30 min.	15 min.
Sikafloor 381	60 min.	30 min.	15 min.

Waiting time between applications:

		+ 10 °C	+20 °C	+30 °C
Sikafloor 156	min.	24 hours	8 hours	5 hours
	max.	4 days	2 days	24 hours
Sikafloor 381	min.	24 hours	12 hours	6 hours
	max.	2 days	24 hours	12 hours

Final curing:

Sikafloor 381	+ 10 °C	+20 °C	+30 °C
ready for foot traffic	2 days	24 hours	12 hours
light serviceable	3 days	2 days	24 hours
full serviceable	7 days	7 days	5 days

Overworkability:

With itself after thorough blastcleaning or grinding.

Cleaning of implements:

Thinner C.

Precautionary measures:

Component B of Sikafloor 381 falls under the dangerous goods regulations (class 8 - alkaline caustic liquid). Observe safety advice printed on label.

In a liquid state the product as well as the thinner contaminate water and should not get into drains, water and soil.

In any case remnants of thinner and material must be disposed according to regulations.

During application in closed rooms, pits and shafts etc. sufficient ventilation must be provided. Keep away open light including welding.

In badly lit rooms only electric safety lamps are permitted. The installed ventilation equipment must be spark-proof.

Further details are contained in our instructions "Health protection and prevention of accidents".

The information given in this data sheet is based on many years experience and is correct to the best of our knowledge. As the information given therein is of general nature, we cannot assume any responsibility nor as regards to patent/trademark rights of third parties. Success will always depend on the peculiarities of the individual case. We also refer to our standard conditions of sale. Please consult our technical department for further information.

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