

# Sikafloor®-21 PurCem® MY

## Self-levelling polyurethane-cement floor topping

Construction

### Product Description

Sikafloor®-21 PurCem® MY is a three part, water based, high strength, thermal shock, medium duty, coloured polyurethane self-smoothing topping suitable for floors subject to abrasion, chemical exposure and other physical aggression.

### Uses

Sikafloor®-21 PurCem® MY is ideally suited for the following areas:

- Chemical processing
- Food processing and wet areas
- Brewing and dairy (clean areas)
- Engineering process areas
- Heavy duty traffic and plant areas
- Warehouse / logistics areas
- Pharmaceutical industrial
- Palm oil processing and packaging plants

### Characteristics / Advantages

- Excellent resistance to organic and inorganic acids, alkalis, fuel and hydraulic oils, aromatic and aliphatic solvents
- Resists bacterial growth, fungi, mould, and mildew
- Durable and resistant to abrasion and impact
- Solvent free, odorless

### Product Data

#### Form

#### Colours

Standard Colours: Red, Green, Cream, Yellow, Grey, Light Grey.

(Exposed to UV may occur colour change and can be coated with Sikafloor 359MY)

#### Finishing

Seamless matt, smooth finish

#### Packaging

20 kg sets (Parts A : 3kg : Part B : 3kg : Part C : 14kg)

#### Storage

#### Storage Conditions / Shelf Life

12 months from the date of production, if stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +10°C and +30°C. Protect from direct sunlight.



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## Technical Data

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**Chemical Base** Water based PU with selected aggregates

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**Density** 1.9 g/cm<sup>3</sup>

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**Layer Thickness** 3 mm minimum / 6 mm maximum

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**Service Temperatures** ■ For 6 mm thickness -5°C to +100°C  
■ For 3 mm thickness 5°C to +80°C

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## Mechanical / Physical Properties

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**Compressive Strength** ~50 N/mm<sup>2</sup> (after 28 days)

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**Flexural Strength** ~21 MPa (after 28 days)

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**Bond Strength** >1.5 N/mm<sup>2</sup> (failure in concrete)

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**Taber abrasion resistance** Weight loss 5mg (1000 cycles)

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## Resistance

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

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**Thermal Resistance** Medium thermal shock resistance.

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## System Information

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### Application Details

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**Consumption**

*Primer*  
Sikafloor®-155 WN 0.3 – 0.5 kg /m<sup>2</sup> per coat

*Sikafloor® 21 PurCem® MY consumption : 1.9kg/m<sup>2</sup>/1mm*

Sikafloor®-21 PurCem® MY	3 mm thickness	5.7kg / m <sup>2</sup>
	4 mm thickness	7.6kg / m <sup>2</sup>
	5 mm thickness	9.5kg / m <sup>2</sup>
	6 mm thickness	11.4kg / m <sup>2</sup>

These figures are theoretical and does not provide for any additional material required due to surface porosity, surface profile, variations in level or wastage, etc.

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**Substrate Quality** The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm<sup>2</sup>) with a minimum pull-off strength of 1.5 N/mm<sup>2</sup>.  
The substrate must be dry and free of all contaminants such as oil, grease, coatings and surface treatments, etc.  
If in doubt, apply a test area first.

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**Substrate Preparation / Priming** Concrete substrates should be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve a profiled open texture surface.

Weak concrete must be removed and surface defects such as blow holes and voids must be fully exposed.

Repairs to substrate, filling of blow holes / voids and surface levelling must be carried out using appropriate products from the Sikafloor<sup>®</sup>, Sikadur<sup>®</sup> and Sikagard<sup>®</sup> Range of materials.

High spots can be removed by 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** 5°C minimum / 35°C maximum

**Relative Air Humidity** 85% maximum

**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 Time** Prior to mixing, stir Part A (resin) well, then add all of Part B (hardener) and mix both liquid parts thoroughly with a low speed electric stirrer for a minimum of one minute until a uniform mix has been achieved.

Gradually add Part C (aggregate) to the mixed resin parts in the mixer for a further 3 minutes minimum, until a uniform moist mix is obtained.

**Mixing Tools** Use a low speed drill (500 rpm) and a helical mixer to mix Sikafloor<sup>®</sup>-21 PurCem<sup>®</sup> MY Parts A and B.

**Application Methods / Tools** Prior to application, confirm substrate moisture content, r.h. and dew point. If > 4% pbw moisture content, Sikafloor<sup>®</sup> EpoCem<sup>®</sup> may be applied as a T.M.B. (temporary moisture barrier) system.

Pour the mixed Sikafloor<sup>®</sup>-21 PurCem<sup>®</sup> MY onto the substrate and spread evenly with a trowel or rake to the required levels, achieving a flat surface. Light spike rolling should be carried out within 3 minutes of application in order to avoid interfering with the film gel time.

**Cleaning of Tools** Clean all tools and application equipment with water immediately after use. Hardened and/or cured material can only be mechanically removed.

**Waiting Time / Overcoatability** Before apply Sikafloor<sup>®</sup>-21 PurCem<sup>®</sup> MY on Sikafloor<sup>®</sup>-155 WN allow:

Substrate Temperature	Waiting Time	
	Minimum	Maximum
20°C	~ 12 hours	~ 72 hours

Always make sure primer is fully cured before application.

## Notes on Application / Limitations

Freshly applied Sikafloor®-21 PurCem® MY should be protected from damp, condensation and water for at least 24 hours.

To ensure the finished system remains fully bonded to the substrate, it is recommended that retaining slots of 5 mm deep by 5 mm wide are formed, running at 150 mm from and parallel to the walls and all edges.

Retaining slots are also recommended at day joints.

Always ensure good ventilation when using Sikafloor®-21 PurCem® MY in a confined space.

## Curing Details

### Applied Product ready for use

Substrate Temperature	Foot Traffic	Light Traffic	Full Cure
25°C	18 hours	30 hours	6 days
35°C	16 hours	24 hours	5 days

All cure times are approximate and will be affected by changing ambient conditions.

## 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.

## 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 (available upon request) 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.



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