

Sikafloor[®]-20 PurCem[®] FG

Heavy Duty Coloured Polyurethane Floor Screed

Construction

Description	Sikafloor-20 PurCem FG is a four part, water-based, high strength, coloured polyurethane resin floor screed suitable for floor subject to heavy loading, abrasion and chemical exposure.	
Uses	Sikafloor-20 PurCem is ideally suited to areas subject to heavy loading, abrasion and high chemical exposure, to provide a 6 to 9 mm thick, hard-wearing surface, such as in: <ul style="list-style-type: none"> ▪ Chemical processing. ▪ Food processing / wet areas. ▪ Brewing/dairy (clean areas). ▪ Engineering process areas. ▪ Warehouse / logistics areas. ▪ Cold rooms. 	
Advantages	<ul style="list-style-type: none"> ▪ Excellent chemical resistance. ▪ High mechanical resistance. ▪ High abrasion resistance. ▪ Steam cleanable at 9 mm thickness. ▪ Thermal resistance. ▪ Slip resistance. ▪ Easily maintained. ▪ Fast curing. ▪ Easy to apply. ▪ Durable. ▪ Jointless. ▪ Matt finish. 	
Storage and Shelf Life	Approximately six (6) months from date of manufacture when stored in its unopened original containers in a dry place at temperatures between +10°C and +30°C.	
Product Data		
Colours	Light Grey and Red	
Packaging	30 kg kit (Parts A + B + C + D)	
Instructions for Use		
Consumption	<p>Primer</p> <p>Sikafloor 156 ~ 0.3 to 0.5 kg/m² per coat</p> <p>Screed</p> <p>Sikafloor 20 PurCem FG For 6 mm thickness: ~ 12 kg/m² For 9 mm thickness: ~ 18 kg/m²</p> <p>These figures are theoretical and do not provide for any additional material required due to surface porosity, surface profile, variations in level or wastage, etc.</p>	
Substrate Quality	<p>The concrete substrate must be sound and of sufficient compressive strength (min. 25 N/mm²) with a minimum pull-off strength of 1.5 N/mm².</p> <p>The surface must be clean, dry and free of all contaminants e.g. dirt, oils, grease, coatings and surface treatments etc. If in doubt, apply a test area first.</p>	

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 product from the Sikafloor, Sikadur and Sikagard 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.

Technical Data

Chemical Base	Water-based PU with cementitious aggregate	
Density	~ 2.1 kg per litre (mixed)	
Layer Thickness	6 mm min. / 9 mm max.	
Thermal Expansion Coefficient	2.5 x 10 ⁻⁵ per °C	
Service Temperatures	<ul style="list-style-type: none"> ▪ For 9 mm thickness ▪ For 6 mm thickness 	Up to +120°C (steam cleanable) Up to +60°C

Mechanical / Physical Properties

Compressive Strength	~ 60 N/mm ²
Tensile Strength	~ 7 N/mm ²
Flexural Strength	~ 14 N/mm ²
Bond Strength	~1.5 N/mm ² (failure in concrete)
Abrasion Resistance	~ 1100 mg loss, Taber abrasion

Resistance

Chemical Resistance Spillage resistance to most dilute and concentrated organic and inorganic acids, dilute and concentrates alkalis, fats, oils and organic solvents.

For resistance to specific chemicals, please contact our Technical Department.

Thermal Resistance The product is designed to withstand thermal shock caused by steam cleaning when thickness is 9 mm.

Application Conditions / Limitations

Substrate Temperature	+10°C min. / +30°C max.
Relative Air Humidity	85% max.



Application Instructions

Mixing Time Prior to mixing, stir Part A well and empty into a clean mixing drum. Then add all of Part B and mix both liquid parts thoroughly with a low speed electric stirrer for 15 seconds until a uniform mix has been achieved.

Then gradually add Part C and Part D and mix for a further one minute until a fully homogeneous mortar is obtained.

Mixing Tools Use a heavy-duty low speed drill (500 rpm) and a helical mixer to mix Sikafloor 20 PurCem FG.

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.

Pour the mixed Sikafloor 20 PurCem FG onto the substrate and spread evenly with a trowel or rake to the required levels, achieving a flat surface. Light rolling with a long pile roller should be carried out immediately 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 / cured material can only be mechanically removed.

Potlife 15 minutes @25°C

Waiting Time / Overcoatability Before applying Sikafloor 20 PurCem FG on Sikafloor 156, 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-20 PurCem should be protected from damp, condensation and water and temperatures below 5°C for at least 24 hours.
- To ensure the finished system remains fully bonded to the substrate, it is recommended that retaining slots of 8 mm deep by 8 mm wide are formed, running at 150 mm from the parallel to the walls and all edges.
- Retaining slots are also recommended at day joints.
- For older floors, additional keying may be achieved by providing 8 mm x 8 mm grooves diagonally into the floor every m2 of floor area.
- When the floor surface is exposed to UV, slight yellowing may occur without affecting its mechanical properties.
- Always ensure good ventilation when using Sikafloor-20 PurCem FG in a confined space.
- 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.

Curing Details

Applied Product ready for use

Substrate Temperature	Foot Traffic	Light Traffic	Full Cure
25°C	~ 10 hours	~ 24 hours	~ 7 days
35°C	~ 8 hours	~ 18 hours	~ 5 days

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

Health and Safety Information

Protective Measures

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

Use of basic principles of industrial hygiene, such as rubber gloves, goggles and protective clothing will enable this product to be used safely. Change soiled work clothes and wash hands before eating after finishing work.

Local regulations as well as health and safety advice on packaging labels must be observed.

Important Notification

The information, and, in particular, the recommendations relating to the application and end-use of Sika's 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 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 proprietary rights of third parties must be observed. All orders are accepted subject of our terms and conditions of sale. Users should always refer to the most recent Australian version of the Technical Data Sheet for the product concerned, copies of which will be supplied on request.

PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.

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