

# Sikafloor<sup>®</sup>-21 PurCem

## Self-Smoothing Polyurethane Flooring

Construction

<b>Description</b>	Sikafloor-21 PurCem is a self-smoothing topping based on water-dispersed polyurethane technology which provides excellent resistance to abrasion, chemical attack and other physical aggression.		
<b>Uses</b>	Sikafloor-21 PurCem is ideally suited for the following areas: <ul style="list-style-type: none"> <li>▪ Chemical processing</li> <li>▪ Food processing and wet areas</li> <li>▪ Brewing and dairy (clean areas)</li> <li>▪ Engineering process areas</li> <li>▪ Heavy duty traffic and plant areas</li> <li>▪ Warehouse/Logistics areas</li> </ul>		
<b>Advantages</b>	<ul style="list-style-type: none"> <li>▪ Excellent resistance to organic and inorganic acids, alkalis, fuel and hydraulic oils, aromatic and aliphatic solvents.</li> <li>▪ Durable and resistant to abrasion and impact.</li> </ul>		
<b>Product Data</b>			
<b>Colours &amp; Finishing</b>	Mid-Grey, Green, Red and Yellow; seamless matt, smooth finish		
<b>Application Thickness</b>	A range of 3 – 6 mm thick depending on operational requirements		
<b>Shelf Life &amp; Storage</b>	6 months from the date of production when stored in original unopened packaging in a cool, dry place.		
<b>Packaging</b>	18.6 kg kit		
<b>Technical Data</b>			
<b>Density</b>	2.0kg per litre		
<b>Mechanical Strengths</b>	<ul style="list-style-type: none"> <li>▪ Compressive Strength</li> <li>▪ Tensile Strength</li> <li>▪ Flexural Strength</li> <li>▪ Elastic Modulus</li> <li>▪ Slant Shear Bond Strength</li> </ul>	<ul style="list-style-type: none"> <li>62 N/mm<sup>2</sup></li> <li>15 N/mm<sup>2</sup></li> <li>35 N/mm<sup>2</sup></li> <li>1530 N/mm<sup>2</sup></li> <li>55 N/mm<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>(BS 6319:Part 2)</li> <li>(BS 2782:320D)</li> <li>(ASTM D790-84a)</li> <li>(BS 2782: 320D)</li> <li>(BS 6319)</li> </ul>
<b>Abrasion Resistance</b>	900 (by Taber mg loss/1000 cycles/1kg load with H18 wheel)		
<b>RRL Slip Resistance</b>	45 wet and 65 dry		
<b>Surface Spread of Flame</b>	Class 2 BS 476: Part 7		
<b>Temperature Tolerance</b>	Maximum 60°C		
<b>Instructions For Use</b>			
<b>Substrate Requirements</b>	<ul style="list-style-type: none"> <li>▪ The substrate must be of sufficient strength (minimum compressive strength is 25 N/mm<sup>2</sup>)</li> <li>▪ The substrate pull-off strength should not be below 1.5 N/mm<sup>2</sup>.</li> <li>▪ The moisture content of the concrete shall be less than 6%.</li> <li>▪ The surface shall be prepared by mechanical abrasion.</li> <li>▪ The surface must be even, fine gripping, solid dry and free from loose and friable particles and all other contamination (for example oil).</li> <li>▪ All dust must be completely removed by brush and vacuum.</li> <li>▪ In order to ensure the finished system remains fully bonded to the substrate, it is recommended that retaining slots of 10 mm deep by 10 mm wide are formed, running at 150 mm from and parallel to the walls.</li> <li>▪ Retaining slots are also recommended at day joints.</li> </ul>		

<b>Mixing</b>	Mixing should be done with a heavy duty electrical mixer with a maximum speed of 500 rpm. Sikafloor-21 PurCem is a 3-component product. Pre-mixing of the coloured liquid resin (Component A) is recommended to ensure any light settlement is reincorporated. Thereafter, thoroughly scrape the contents of the liquid colour component into the brown hardener (Component B) and mix for 1 minute or until a homogenous mix is obtained. The resultant resin blend should then be loaded into a clean container and the aggregate (Component C) added gradually, mixing for a further 2 minutes until a lump-free, smooth mix is obtained.	
<b>Coverage</b>	<ul style="list-style-type: none"> <li>▪ Sikafloor 156 (primer coat) 0.3 – 0.5 kg per m<sup>2</sup> per coat</li> <li>▪ Sikafloor-21 PurCem*: <ul style="list-style-type: none"> <li>3 mm 6 – 7 kg per m<sup>2</sup></li> <li>4 mm 8 – 9 kg per m<sup>2</sup></li> <li>5 mm 10 – 11 kg per m<sup>2</sup></li> <li>6 mm 12 – 13 kg per m<sup>2</sup></li> </ul> </li> </ul>	
	*Typical values, subject to variations depending on substrate conditions	
<b>Priming</b>	Priming of all surfaces should be undertaken with Sikafloor-156. The primer should be allowed to cure for a minimum of 12 hours prior to application of the Sikafloor-21 PurCem (maximum overcoating time at 20°C is 72 hours).	
<b>Application Conditions</b>	<ul style="list-style-type: none"> <li>▪ Relative Humidity: 85% maximum</li> <li>▪ Substrate temperature: 5 to 35°C</li> </ul>	
<b>Application Method</b>	Pour the pre-mixed material onto the pre-primed area, levelling to the required thickness with a steel trowel and aided by a spiked roller. Light spike rolling should be carried out within 3 minutes of application in order to avoid interfering with the film gel time.	
<b>Important Notes</b>	<ul style="list-style-type: none"> <li>▪ Freshly applied Sikafloor-21 PurCem should be protected from damp, condensation and water for at least 24 hours.</li> <li>▪ Some loss of colour may be noted when exposed to UV light.</li> </ul>	
<b>Cure Schedule</b>	<ul style="list-style-type: none"> <li>▪ Working time 10 minutes</li> <li>▪ Cure time to light foot traffic 4-6 hours</li> <li>▪ Cure time to light wheeled traffic 16 hours</li> <li>▪ Cure time to heavy-duty traffic 48 hours</li> <li>▪ Full cure (full chemical resistance) 3-5 days</li> </ul>	
<b>Safety Precautions</b>	Wear gloves and goggles during application. If in contact with skin, wash thoroughly with soap and water. Use of barrier cream is recommended. If in contact with eyes or mucous membrane, flush immediately with plenty of water and seek medical attention without delay. Use with adequate ventilation. For more information, refer to our Material Safety Data Sheet (available upon request).	
<b>Cleaning</b>	Use Thinner C for non-hardened material on equipment. Hardened material may have to be mechanically removed.	
<b>Important Notification</b>	<p>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 issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request.</p> <p>PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.</p>	

