

Sikafloor[®]-31 PurCem[®] AU

Solvent free, High Build polyurethane coating

Construction

Positioning Description	Sikafloor-31 PurCem AU is a four part, solvent free, high build, coloured, matt finish, coating based on the unique Sikafloor PurCem AU water dispersed polyurethane / cement aggregate technology. Typically installed as stand-alone coating for concrete substrates or used as a top coat for Sikafloor PurCem AU broadcast textured finishes. It provides an economical solution that has excellent chemical resistance properties and very good durability against abrasion and mechanical damage.														
Uses	<ul style="list-style-type: none"> ▪ In combination with Sikafloor-20 PurCem, Sikafloor-21 PurCem AU and Sikafloor-29 PurCem ▪ As a high build coating ▪ As a chemical resistant concrete coating ▪ Typically used in food processing plants, chemical storage areas, warehouses, washrooms, laboratories, food preparation areas and chemical process plants. 														
Advantages	<ul style="list-style-type: none"> ▪ Resists a very wide range of organic and inorganic acids, alkalis, amines, salts and solvents. Consult Technical Sales for full details. Refer to the Sikafloor PurCem Chemical Resistance Chart. ▪ Non taint, odourless ▪ Excellent long term wear resistance from a two coat application ▪ Economical and easy to apply ▪ USDA acceptance for use in food plants in the USA ▪ Canadian Food Inspection Agency acceptance for use in food plants in Canada ▪ British Standards Specifications (BSS) acceptance for use in the UK. 														
Technical Data															
Packaging	<p>4.9 kg / kit</p> <p>Component A: 1.4 kg pail Component B: 1.5 kg pail Component C: 1.6 kg Pigment: 0.4 kg pack</p> <p>NOTE: Use 0.4kg colour pack for the following colours in Sikafloor-31 PurCem AU: Beige - Red Oxide - Pastel Blue - Grass Green</p> <p>FOR ALL OTHER COLOURS: a 0.4kg colour pack can colour 2 x kits of Sikafloor-31 PurCem AU (0.2kgs/kit)</p>														
Appearance / Colours	<table border="0"> <tr> <td style="vertical-align: top;">Standard colours:</td> <td style="vertical-align: top;">*Available on request</td> </tr> <tr> <td>- Curtain Call</td> <td>*Traffic Grey RAL 7042</td> </tr> <tr> <td>- Beige RAL 1001</td> <td>*Sky Blue RAL 5015</td> </tr> <tr> <td>- Oxide Red RAL 3009</td> <td>*Grass Green RAL 6010</td> </tr> <tr> <td>- Pastel Blue RAL 5024</td> <td>*Slate Grey RAL 7015</td> </tr> <tr> <td>- Dusty Grey RAL 7037</td> <td></td> </tr> <tr> <td>- Maize Yellow RAL 1006</td> <td></td> </tr> </table>	Standard colours:	*Available on request	- Curtain Call	*Traffic Grey RAL 7042	- Beige RAL 1001	*Sky Blue RAL 5015	- Oxide Red RAL 3009	*Grass Green RAL 6010	- Pastel Blue RAL 5024	*Slate Grey RAL 7015	- Dusty Grey RAL 7037		- Maize Yellow RAL 1006	
Standard colours:	*Available on request														
- Curtain Call	*Traffic Grey RAL 7042														
- Beige RAL 1001	*Sky Blue RAL 5015														
- Oxide Red RAL 3009	*Grass Green RAL 6010														
- Pastel Blue RAL 5024	*Slate Grey RAL 7015														
- Dusty Grey RAL 7037															
- Maize Yellow RAL 1006															
Yield	<p>Smooth surfaces: 0.3 - 0.35kgs / m² / coat (13 - 16m² / kit / coat)</p> <p>Textured surfaces: 0.7 - 0.8kgs / m² / coat (6 - 7 m² / kit / coat)</p> <p>(These figures do not allow for surface porosity, profile or wastage)</p>														



Accelerator	Addition rate	0.3% by weight	0.5% by weight																		
	Temp 21°C																				
	Surface dry	3 hours	90 min																		
	Hard Dry	6 hours	3 hours																		
	Temp 6°C																				
	Surface Dry	5 hours	3 hours																		
	Hard Dry	8 hours	6 hours																		
	Shelf Life	Part A -	9 months																		
		Part B -	6 months																		
		Part C -	6 months																		
Pigment -		9 months																			
Store dry between 10°C and 25°C. Protect from freezing.																					
Mix Ratio	Components A:B:C:Pigment = 29.8:31.9 34.0:4.3 (parts by weight)																				
Properties at 23°C and 50% r.h.																					
Application Temperature	10°C min. / 30°C max. Optimal application temperature range : 20 - 25°C																				
Density	1.40 kg/l		ASTM C 905																		
Flow	N/A (liquid)																				
Cure Time	<table border="1"> <tr> <td>Usable pot life</td> <td>20 – 25 min</td> <td>At 20°C</td> </tr> <tr> <td>Initial join up time</td> <td>5 – 8 min</td> <td>At 20°C</td> </tr> <tr> <td>Waiting Time between coats</td> <td>16 h min. / 48 h max.</td> <td>At 20°C</td> </tr> <tr> <td>Cure to foot traffic</td> <td>8 – 10 h</td> <td>At 20°C</td> </tr> <tr> <td>Cure to light traffic</td> <td>36 – 48 h</td> <td>At 20°C</td> </tr> <tr> <td>Full cure</td> <td>5 days</td> <td>At 20°C</td> </tr> </table>			Usable pot life	20 – 25 min	At 20°C	Initial join up time	5 – 8 min	At 20°C	Waiting Time between coats	16 h min. / 48 h max.	At 20°C	Cure to foot traffic	8 – 10 h	At 20°C	Cure to light traffic	36 – 48 h	At 20°C	Full cure	5 days	At 20°C
	Usable pot life	20 – 25 min	At 20°C																		
	Initial join up time	5 – 8 min	At 20°C																		
	Waiting Time between coats	16 h min. / 48 h max.	At 20°C																		
	Cure to foot traffic	8 – 10 h	At 20°C																		
	Cure to light traffic	36 – 48 h	At 20°C																		
	Full cure	5 days	At 20°C																		
Softening Point	130°C																				
Compressive Strength	N/A		ASTM C579																		
Tensile Strength	10.7 MPa		ASTM C 307																		
Flexural Strength	24.7 MPa		ASTM C 580																		
Bond Strength	>1.75 MPa (substrate failure)		ASTM D 4541																		
Thermal Compatibility	Pass		ASTM C 884																		
Hardness, Shore D	80		ASTM D 2240																		
Indentation	~ 0%		MIL-PRF-24613																		
Impact Resistance	2.27 joules at 1 mm of thickness		ASTM D 2794																		
Abrasion Resistance H-22/1000 cycles/1000 g	-1.57 g		ASTM D 4060																		
Coefficient of Friction	Steel 0.3		ASTM D 1894-61 T																		
	Rubber 0.5																				
Coefficient of Thermal Expansion	N/A		ASTM D 696																		
Water Absorption	0.07%		ASTM C 413																		
Chemical Resistance	Consult our Technical Department																				



Application Instructions

Surface preparation

Concrete surfaces must be clean and sound. Remove all dust, dirt, existing paint films, efflorescence, exudates, laitance, form oils, hydraulic or fuel oils, brake fluid, grease, fungus, mildew, biological residues or any other contaminants which may prohibit good bond. Prepare the surface by appropriate mechanical means, i.e. steel shot blasting or any other method approved by Sika to achieve (CSP 3). The compressive strength of the concrete substrate should be at least 25MPa at 28 days and a minimum of 1.5 MPa in tension at the time of application. Repairs to cementitious substrates, filling of blowholes, levelling of irregularities, etc. should be carried out from the Sikafloor, Sikadur and Sikagard range of products.

Mixing

Mixing will be affected by temperature; condition materials for use to 18°C to 25°C. Add pigment to part A. Stir for approximately 15 seconds. Add Component B and mix for approximately 30 seconds with a low speed mixer. While mixing, add Component C within 15 seconds. Further mix for 2 minutes until the mixture is homogeneous and the pigment is uniformly dispersed.

Mix full units only.

Application

Apply by short or medium nap roller directly from a paint tray. Push the resin well into the surface, making sure the floor is fully wetted, and then pull back lightly with roller to the required thickness. A slip resistant texture can be attained by seeding the Sikafloor-31 PurCem AU with selected mineral aggregates then sealed with a second coat of Sikafloor-31 PurCem AU.

Clean up

Clean all tools and equipment with Sika Thinner C. Wash soiled hands and skin thoroughly in hot soapy water. Once hardened, product can only be removed mechanically.

Limitations

- Steam cleaning may lead to delamination due to thermal shock (if used over Sikafloor-20 N PurCem).
- Do not apply below 10°C or above 30°C / maximum relative humidity 85%.
- Do not apply to unreinforced sand cement screeds, asphaltic or bitumen substrate, glazed tile or non-porous brick, tile and magnesite, copper, aluminium, soft wood, or urethane composition, elastomeric membranes, fibre reinforced polyester (FRP) composites.
- Do not apply to wet or green concrete or polymer modified patches if the moisture content >10%.
- Do not apply to concrete if air or substrate temperature is within 3°C of dew point.
- Protect substrate during application from condensation from pipes or any overhead leaks.
- Do not mix Sikafloor PurCem materials by hand / mechanical mix only.
- Do not apply to cracked or unsound substrates.
- Avoid puddles during application.
- Do not use on exterior, on-grade substrates.
- Do not apply to surfaces where moisture vapour can condense and freeze.
- For interior use only.
- Colour uniformity cannot be completely guaranteed from batch to batch (numbered). Take care when using Sikafloor PurCem products to draw from inventory in batch number sequence, do not mix batch numbers in a single floor area.
- Always allow a minimum of 48 hours after product application prior to placing into service in proximity with food stuffs.
- Products of the Sikafloor PurCem range are subject to yellowing when exposed to UV radiation. There is no significant loss of other properties when this occurs.

Important Notes

Component A – Frequent or prolonged skin contact may cause some local short term skin irritation. Avoid contact with eyes, may cause slight transient irritation.

Component B – Harmful by inhalation. Irritating to eyes, respiratory system and skin. May cause sensitisation by inhalation and skin contact.

Component C and Pigment – Risk of serious damage to eyes. In case of contact with eyes, rinse immediately with plenty of water. May cause skin irritation. Avoid breathing dusts. Respirable dusts could if inhaled over a prolonged period constitute a health hazard. Consult Safety Data Sheet for additional information.



Health and Safety Information

In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes. Contact a physician immediately. For respiratory problems, transport victim to fresh air.

For further information refer to our Safety Data Sheet.

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.



Sika (NZ) Limited
PO Box 19192, Auckland 1746, NZ.
0800 745 269 | www.sika.co.nz

Innovation & Consistency | since 1910