

SikaLevel[®]-300 (au)

High performance cementitious, self levelling, underlayment for use 0.5 - 15 mm, 15 - 30 mm with added aggregate

Construction

Description

SikaLevel[®]-300 (au) is a one part, polymer modified, pumpable self levelling high performance cementitious underlayment for the levelling and smoothing of interior floors prior to the application of the final floor finish.

Uses

SikaLevel[®]-300 (au) can be applied manually or by pump to level floors at a thickness between 0.5 - 15 mm, prior to subsequent finishing with ceramic or stone tiles, linoleum, PVC sheet, wood flooring or carpets etc.

- Suitable for rolling chair traffic (on the floor finish above).

SikaLevel[®]-300 (au) is compatible with the Sika adhesives used to lay these types of floor finishes.

Advantages

- Self levelling and good air release.
- Fast application because of the very good flow and cohesion of the fresh product.
- Very smooth and pore free surface.
- Easy to place by pump or manual application.
- Capable of levelling surfaces from 0.5 up to 15 mm (15 - 30 mm with added aggregate).
- Low shrinkage.
- Very good bond and high mechanical strengths.
- Maintains good workability and joint healing throughout its pot life.
- Fast setting and drying 2-3 hours walk on time (+20°C).
- Very good surface appearance and hardness.
- Casein and Formaldehyde free.
- Very low emissions.

Storage and Shelf-Life

6 months from date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +30°C.

Instructions for Use

Surface Preparation

Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.

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

Repairs to the substrate, filling of blowholes / voids must be carried out using SikaQuick[®]-2500 (au) or other appropriate products from the SikaTop[®], Sika MonoTop[®], Sikafloor[®], Sikadur[®] and Sikagard[®] range of materials.

All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.



Priming	<p>A suitable primer such as SikaLevel®-Primer can be used to ensure sealing of the substrate to prevent the appearance of bubbles on the underlayment surface and improve the bond to the substrate.</p> <p>Alternative:</p> <p>If the substrate is strong and has a sufficiently rough texture, SikaLevel®-300 (au) can be applied directly onto the substrate. Avoid bubbles by dampening the substrate until a SSD (Saturated Substrate Dry) condition is achieved. Poor or weak substrates must be primed with Sikafloor®-156 fully broadcast with quartz sand 0.4 - 0.7 mm.</p>							
Mixing	<p>When mixing manually add the dry powder (20 kg) into a container with the clean water. The water required is or between 4.8 and 5.2 l per 20 kg bag of mortar-powder.</p> <p>After mixing leave the material to stand in the container for two or three minutes until the majority of air bubbles have dispersed.</p> <p>Use an electric stirrer (< 500 rpm).</p> <p>Mix thoroughly for a minimum of 3 minutes.</p>							
Curing	<p>At +20°C and 50% r.h.</p> <table border="1"> <tr> <td>Foot traffic</td> <td>~ 2-4 hours</td> </tr> <tr> <td>Lightly serviceable</td> <td>~ 24 hours</td> </tr> <tr> <td>Fully serviceable</td> <td>~ 7 days</td> </tr> </table> <p>Note: Times are approximate and will be affected by changing substrate and ambient conditions, particularly the temperature and relative humidity.</p>		Foot traffic	~ 2-4 hours	Lightly serviceable	~ 24 hours	Fully serviceable	~ 7 days
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Lightly serviceable	~ 24 hours							
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Technical and Physical Data								
Form	Powder: Light grey							
Chemical Base	Polymer modified rapid hardening cement.							
Density	1.05 kg/l ± 0.02 (bulk powder) 1.99 kg/l ± 0.02 (fresh mortar)							
Layer Thickness	0.5 mm min. / 15 mm max. 15 mm min. / 30 mm max., with about 25% by weight addition of 0.7 to 1.2 or 1.0 - 2.0 mm of quartz sand per bag.							
Compressive Strength	> 10 N/mm ² (after 24 hours / +20°C)	(EN 13892-2)						
	> 18 N/mm ² (after 7 days / +20°C)	(EN 13892-2)						
Bond Strength	> 1.5 N/mm ² (after 28 days / +20°C)	(EN 13892-8)						
Thermal Resistance	Suitable for use with underfloor heating systems.							
Consumption / Dosage	~ 1.6 ± 0.05 kg/m ² /mm This figure is theoretical and does not include for any additional material required due to surface porosity, surface profile, variations in level or wastage etc.							
Application Conditions / Limitations								
Substrate Temperature	+8°C min. / +30°C max.							
Ambient Temperature	+8°C min. / +30°C max.							
	For increased surface strength and better bond of the floor finish when using water based adhesives, it is recommended for best results to apply the mortar at ambient and substrate temperatures between +15°C and +25°C.							
Substrate Moisture Content	The substrate can be in a SSD condition, but there must be no rising moisture prior to the dampening operation, according to ASTM D 4263 (Polyethylene-sheet test). For further information please refer to the Technical Data Sheet of the primer used.							

Relative Air Humidity ~ 75% max.

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, blooming or cement laitance on the floor finish.

Application Instructions

Application Method / Tools Pour the mixed material onto the primed surface and apply by trowel or pin screed rake to the required thickness. Roll thoroughly with spiked roller in two directions to remove any entrapped air.

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

Potlife

Conditions	Time
+23°C / 50% r.h.	30 minutes

The temperature will affect the pot life. Application at temperatures above +23°C will reduce the pot life and the working time. Temperatures below +23°C will increase the pot life and extend the working time.

Waiting Time / Overcoatability Suitable for overcoating with impermeable moisture sensitive floors after drying (max. 3 % humidity); normally reached after 24 hours.

Suitable for overcoating with tiles after 4 - 6 hours.

Suitable for wood floor bonding at 3 mm thickness after 24 hours.

Times are approximate and at +23°C and 50% r.h. and thus will be affected by changing substrate and ambient conditions, particularly the temperature and relative humidity.

When overcoating SikaLevel®-300 (au) always ensure the moisture content has achieved the required value for the coating product, as the waiting time will vary with the application thickness and ambient humidity.

Notes on Application / Limitations

Very absorbent substrates must be saturated with water or primed to prevent loss of the mixing water into the substrate, which can cause problems such as shrinkage, the appearance of surface pores or weak and dusty surfaces etc.

Do not mix with other cements or cement based screeds.

No loading for at least 2 hours.

Freshly applied SikaLevel®-300 (au) must be protected from damp, condensation and water for at least 24 hours.

Do not exceed the recommended water dosage. Do not add more water when the product is starting to set.

Do not exceed the recommended thicknesses, 30 mm. with, or 15 mm without, sand addition.

Do not use for external or industrial applications.

Temperatures below +20°C extend the drying times.

SikaLevel®-300 (au) does not provide an aesthetic finish. Product must always be overcoated.

Do not use SikaLevel®-300 (au) in areas where it can be exposed to moisture, such as below ground floors without an effective damp proof membrane, or externally in any area.

Not suitable for slopes or inclines > 0.5%.

Protect from direct sunlight, hot or strong winds and extremes of temperature to avoid cracking or crazing.

The thickness of the levelling mortar has to be at least 3mm when using water-based adhesives under impermeable or vapour tight floor finishes.

For adhesives other than SikaBond® we recommend a test-application prior to use.

At thicknesses greater than 3 mm or with floating screeds an edge strip must be placed to separate the screed from the walls and other construction elements.

Packaging	SikaLevel®-Primer: 5 and 20 Litres SikaLevel®-300 (au): 20 kg bags
Value Base	All technical data stated in this Technical 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 containing physical, ecological, toxicological and other safety-related data.
Legal Notes	<p>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 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 to our current terms and conditions of sale. Users should always refer to the most recent issue of the Australian version 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>

