



# Sikafloor®-415

1-part, pigmented, aliphatic PUR sealer and base coat

<b>Product Description</b>	Sikafloor®-415 is a one part, aliphatic polyurethane coating on carbonate base used as a wear-resistant finishing coat for the Sika® Balcony Premium System but also used in combination with the Sika PU Accelerator as a sealer and base coat for Sika Balcony Fast Cure I System.
<b>Uses</b>	<ul style="list-style-type: none"> <li>■ Abrasion resistant seal coat with crack-bridging properties</li> <li>■ Seal coat for Sikafloor®-405</li> <li>■ Together with Sika® PU Accelerator used as the base and seal coat of the Sika Balcony Fast Cure I System</li> <li>■ Only for exterior application</li> </ul>
<b>Characteristics / Advantages</b>	<ul style="list-style-type: none"> <li>■ Moisture triggered</li> <li>■ Elastic</li> <li>■ Crack-bridging</li> <li>■ Waterproof</li> <li>■ Water vapour permeable</li> <li>■ UV resistant, non-yellowing</li> <li>■ Weather resistant</li> <li>■ Abrasion resistant with normal pedestrian use</li> <li>■ Slip resistant</li> <li>■ Fast cure possible with additional Sika® PU Accelerator</li> </ul>

## Product Data

### Form

<b>Appearance / Colour</b>	pigmented liquid RAL 3009, RAL 6002, RAL 7015, RAL 7032, RAL 7042, RAL 7047
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<b>Packaging</b>	5 litres (5.50 kg)
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### Storage

<b>Storage Conditions / Shelf Life</b>	12 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.
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## Technical Data

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<b>Chemical Base</b>	Tough elastomeric aliphatic polycarbonate coating	
<b>Density</b>	1.1 kg/l Density value at +23°C.	(EN ISO 2811-1)
<b>Solid Content</b>	~ 60.5 % (by volume) / ~67.7 % (by weight)	(EN ISO 3251)
<b>Flash Point</b>	~ 41°C	(EN ISO 3679)

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## Mechanical / Physical Properties

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<b>Tensile Strength</b>	~ 25 N/mm	(EN ISO 527-1/EN ISO 527-3)
<b>Elongation at Break</b>	~ 230 %	(EN ISO 527-1/EN ISO 527-3)

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## Resistance

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<b>Chemical Resistance</b>	Resistant to many chemicals.
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## System Information

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### System Structure

#### Sika® Balcony Premium System

Primer: 1 x Sika® Bonding Primer

#### Waterproofing:

First coat: 1 x Sikafloor®-405  
Membrane: Sika® Reemat Premium  
Second coat: 1 x Sikafloor®-405

The waterproofing system build up must always be overcoated with the following finishing system chosen according to the mechanical resistance and the aesthetical aspect

#### Finish: Solid

Wear course: 1 x Sikafloor®-405 fully broadcasted with Sikafloor®-Quartz Sand KG 8\*, e.g Grey (0.3-0.8 mm)  
Seal Coat: 1 x Sikafloor®-415

#### Sika® Balcony Fast Cure I

Primer: 1 x Sika® Concrete Primer

#### Finish: Solid fast cure

Base coat: 1 x Sikafloor®-415 with additional Sika® PU Accelerator fully broadcasted with Sikafloor®-Quartz Sand KG 8\* (0.3-0.8 mm)  
Seal coat: 1 x Sikafloor®-415 with additional Sika PU® Accelerator

#### Finish: Decomix fast cure

First coat: 1 x Sikafloor®-415 with additional Sika® PU Accelerator  
Second coat: 1 x Sikafloor®-415 with additional Sika® PU Accelerator broadcasted slightly with a mix of Sikafloor®-Colour Chips Mix, e.g. Gobi and Quartz sand (0,1-0,3 mm)  
Top coat: 1 x Sikafloor®-416 (not mandatory)

\*The colour of the used Quartz sand has to correspond to the colour of the Sealer coat

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## Application Details

### Consumption / Dosage

#### Sika® Balcony Premium System

Coating System	Product	Consumption
Primer	Sika® Bonding Primer	max.0.15 l/m <sup>2</sup> (~0.15kg/m <sup>2</sup> )

#### Waterproofing

First coat	Sikafloor®-405	min. 1.1 l/m <sup>2</sup> (~1.43kg/m <sup>2</sup> )
Membran	Sika® Reemat Premium	Has to embed fully in the wet first coat.
Second coat:	Sikafloor®-405	min. 0.5 l/m <sup>2</sup> (~0.65kg/m <sup>2</sup> )

#### Finish: Solid

Base coat	Sikafloor®-405 Fully broadcasted with Sikafloor®-Quartz Sand KG 8*, (0.3-0.8 mm)	min.0.3l/m <sup>2</sup> (~0.4kg/m <sup>2</sup> ) ~ 3 - 4 kg/m <sup>2</sup> (in excess)
Seal coat	Sikafloor®-415	min.0.4 l/m <sup>2</sup> (~0.44kg/m <sup>2</sup> )

#### Sika® Balcony Fast Cure I

Coating System	Product	Consumption
Primer	Sika® Concrete Primer	~ 0.15 l/m <sup>2</sup> (~0.15kg/m <sup>2</sup> )

#### Finish: Solid fast cure

Base coat	Sikafloor®-415 (5l) with additional Sika® PU Accelerator (60 grams) Fully broadcasted with Sikafloor®-Quartz Sand KG 8*, (0.3-0.8 mm)	~ 0.3 l/m <sup>2</sup> (~0.3kg/m <sup>2</sup> )  ~ 3-4 kg/m <sup>2</sup>
Seal coat	Sikafloor®-415 with additional Sika® PU Accelerator	~ 0.4 l/m <sup>2</sup> (~0.4kg/m <sup>2</sup> )

#### Finish: Decomix fast cure

First coat	Sikafloor®-415 (5l) with additional Sika® PU Accelerator (60 grams)	~ 0.4 l/m <sup>2</sup> (~0.4kg/m <sup>2</sup> )
Second Coat	Sikafloor®-415 (5l) with additional Sika® PU Accelerator (60 grams) Slightly broadcasted with a mix of 1 part Sikafloor®-Colour Chips Mix, e.g. 1 part Gobi and 2 parts Quartz sand (0.1 - 0.3 mm)	max.0.2 l/m <sup>2</sup> (~0.2kg/m <sup>2</sup> )  min. 0.04 kg/m <sup>2</sup>
Top Coat: (optional)	1 x Sikafloor®-416	max 0.1l/m <sup>2</sup> (~0.1kg/m <sup>2</sup> )

These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc. The excess of quartz sand or paint flakes has to be removed before applying the seal or top coat.

\*The colour of the used quartz sand has to correspond to the colour of the Sealer coat

Overworking with tiles is also possible.

For priming metal parts on a balcony please use SikaCor EG-Phosphat or SikaCor EG-Phosphat Rapid.

### 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 clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.

Old coating and tiles have to be solid, adherent and free of layers detrimental to adhesion. Existing layer has to be cleaned and mechanically roughened. A test area has to be applied.

<b>Substrate Preparation</b>	<p>Concrete substrates must be prepared mechanically using abrasive blast cleaning or grinding equipment to remove cement laitance and achieve an open textured surface.</p> <p>Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.</p> <p>Repairs to the substrate, filling of blowholes/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.</p> <p>The concrete or screed substrate has to be primed or levelled in order to achieve an even surface.</p> <p>High spots must be removed by e.g. grinding.</p> <p>Solid and good adherent tiles must be grinded and then levelled with a scratch coat of Sikafloor<sup>®</sup>-156 / -161 before applying the chosen Sika Balcony System.</p> <p>All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.</p>
<b>Application Conditions / Limitations</b>	
<b>Substrate Temperature</b>	<p>+2°C min. / +30°C max.</p> <p>Frozen substrates must defrost for 24 hours.</p>
<b>Ambient Temperature</b>	+2°C min. / +30°C max.
<b>Substrate Moisture Content</b>	<p>Visible damp free (maximum 18% wood moisture equivalent).</p> <p>&lt; 6% pbw moisture content Test method: Sika<sup>®</sup>-Tramex meter, &lt; 4% CM - measurement or Oven-dry-method.</p> <p>No rising moisture according to ASTM (Polyethylene sheet).</p>
<b>Relative Air Humidity</b>	<p>80% r.h. max.</p> <p>35% min. (below +20°C: 45% min.)</p>
<b>Dew Point</b>	<p>Beware of condensation!</p> <p>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.</p>
<b>Application Instructions</b>	
<b>Mixing Time</b>	<p><i>Standard:</i> Prior slightly stir Sikafloor<sup>®</sup>-415 mechanically before using.</p> <p><i>Accelerated:</i> Prior slightly stir Sikafloor<sup>®</sup>-415 mechanically. Then add the Sika<sup>®</sup> PU Accelerator complete (60 grams unit for 5 l of Sikafloor<sup>®</sup>-415) and stir until a uniform mix has been achieved.</p> <p>Over mixing must be avoided to minimise air entrapment.</p>
<b>Mixing Tools</b>	Sikafloor <sup>®</sup> -415 must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment.
<b>Application Method / Tools</b>	<p>Prior to application, confirm substrate moisture content, r.h. and dew point.</p> <p><i>First and second coat:</i> Can be applied by medium pile solvent resistant roller.</p> <p><i>Sealer coat:</i> Seal coats must be applied by squeegee and then back-rolled (crosswise) with a medium pile solvent resistant roller.</p>
<b>Cleaning of Tools</b>	Clean all tools and application equipment with Thinner C immediately after use. Hardened and/or cured material can only be removed mechanically.
<b>Potlife</b>	<p>The material in opened containers should be applied immediately. With open containers surface film formation will happen within 1 - 2 hours.</p> <p>High temperatures and high air humidity will accelerate curing significantly.</p>

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**Waiting Time /  
Overcoating**

Before applying Sikafloor®-415 on Sika®-Concrete Primer allow:

At 20°C:            Dry to touch 10 minutes  
                          Dry through 30 minutes  
                          Apply an additional coat if more than 5 days pass before coating

If necessary another coat of Sikafloor®-415 can be applied within 24 hours after the application of the previous coat.

Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

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**Notes on Application /  
Limitations**

Prior to overcoating with Sikafloor®-415, the priming coats must have cured tack-free.

Do not use for interior applications.

Always apply during falling temperatures. If applied during rising temperatures "pin holing" may occur from rising air.

If this is not possible and the substrate seems to be outgassing the use of Sika® Concrete Primer is necessary. Please refer to the Product Data Sheet of Sika® Concrete Primer.

The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.

For exact colour matching, ensure the Sikafloor®-415 in each area is applied from the same control batch numbers.

If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO<sub>2</sub> and H<sub>2</sub>O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.

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**Curing Details****Applied Product ready  
for use***Standard*

Touch Dry:            after 6 hours at 20°C and 75 % RH  
Pedestrian traffic:    after 12 hours at 20°C and 75 % RH

*Accelerated*

Touch Dry:            after 1 hours at 20°C and 75 % RH  
Pedestrian traffic:    after 2 hours at 20°C and 75 % RH

Note: Times are approximate and will be affected by changing ambient conditions.

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**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.

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**Local Restrictions**

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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**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.

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## 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.

## EU Regulation 2004/42

According to the EU-Directive 2004/42, the maximum allowed content of VOC (Product category IIA / i type **sb**) is 500 g/l (Limit 2010) for the ready to use product.

## VOC - Decopaint Directive

The maximum content of **Sikafloor®-415** is < 500 g/l VOC for the ready to use product.



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ISO 14001 ISO 9001