

**Product Data Sheet**

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Identification no. 107

SikaTop Seal 107

**SikaTop® Seal 107**

Flexible, waterproofing and protective slurry mortar

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| <b>Description</b>  | SikaTop Seal 107 is a two-component, polymer-modified, cementitious waterproofing and protective slurry mortar for concrete. It is slightly flexible to tolerate fine cracks and suitable in both interior and exterior applications.  |
| <b>Advantages</b>   | <p>SikaTop Seal 107 provides the following beneficial properties:</p> <ul style="list-style-type: none"> <li>■ Improves the watertightness of water-containing concrete tanks, reservoirs, and clearwells.</li> <li>■ Protects against water penetration, yet water vapor permeable (breathable).</li> <li>■ Excellent freeze/thaw resistance.</li> <li>■ Good adhesion to sound, prepared substrates.</li> <li>■ Easy and fast mixing and application.</li> <li>■ Good abrasion resistance.</li> <li>■ Protects against concrete carbonation (80 mils SikaTop Seal 107 is equivalent to 6 inches of concrete).</li> <li>■ Can be mixed to slurry or trowelable consistency.</li> <li>■ Improves concrete/masonry appearance.</li> <li>■ Available in concrete gray and off-white.</li> <li>■ Approved for potable water contact.</li> </ul> |
| <b>Where to use</b> | <ul style="list-style-type: none"> <li>■ Horizontal surfaces subjected to light foot traffic (balconies).</li> <li>■ For waterproofing of drinking water, tanks, reservoirs, and clearwells.</li> <li>■ For internal and external waterproofing and dampproofing concrete, mortar blockwork and brickwork.</li> <li>■ For protection of concrete structures against the deleterious effects of deicing salts and freeze/thaw cycles.</li> <li>■ For sealing "hairline" cracks in concrete structures not subject to movement surfaces.</li> <li>■ For interior and exterior waterproofing of basements.</li> <li>■ Vertical surfaces.</li> </ul>   |
| <b>Coverage</b>     | <ul style="list-style-type: none"> <li>■ For dampproofing: apply one coat at 40 mils.</li> <li>■ For waterproofing: apply two coats at 40 mils per coat. Theoretical thickness (wet film) on smooth substrates: 40 sq. ft./gal. = 40 mils (2 kg./m<sup>2</sup> = 1 mm). The above figures are theoretical and do not allow for substrate profile and wastage. Three coats may be required in areas of extremely high water infiltration.</li> </ul>  |
| <b>Packaging</b>    | 44 lb. unit - when mixed yields 2.65 gallons (10 l)<br>Component 'A' - 1 gal. plastic jug; 4/carton. Component 'B' - 35.5 lb. multi-wall bag.  |

**Typical Data (Material and curing conditions @ 73°F (23°C) and 50% R.H.)**

|   |   |                                   |  |                          |  |
|---|---|-----------------------------------|--|--------------------------|--|
| <b>Shelf Life</b>   | 1 year when unopened.   |                                   |  |                          |  |
| <b>Storage</b>  | Protect Component 'A' from freezing and Component 'B' from moisture.<br><b>Store dry at 40°- 95°F (4°- 35°C).</b> Condition material to 65°-75°F conditions before using. |                                   |  |                          |  |
| <b>Colors</b>   | Concrete gray and off white.  |                                   |  |                          |  |
| <b>Mixing Ratio</b>   | Component 'A': Component 'B'. Slurry consistency 1:4.1 by weight (full unit)<br>Trowelable consistency 1:4.5 by weight (90% liquid to full bag)                           |                                   |  |                          |  |
| <b>Density (wet mix)</b>  | 125 lbs./cu. ft. (2.0 kg./l.) = 16.6 lbs./gal.  |                                   |  |                          |  |
| <b>Working Time</b>   | Approximately 60 minutes at 68°F; Approximately 30 minutes at 86°F  |                                   |  |                          |  |
| <b>Compressive Strength (ASTM D-695) @ 28 days</b>  |   |                                   |  |                          |  |
| Type White  | 3,000 psi (20.7 MPa)  |                                   |  |                          |  |
| Type Gray   | 3,400 psi (23.4 MPa)  |                                   |  |                          |  |
| <b>Tensile Strength (ASTM C-307) 28 days</b>  |   |                                   |  |                          |  |
| White   | 870 psi (6.0 MPa)   |                                   |  |                          |  |
| Gray  | 990 psi (6.8 MPa)   |                                   |  |                          |  |
| <b>Bond Strength (ACI 503R-30 Modified): Pull-off Test</b>  | 28 days   | 180 psi (1.25 N/mm <sup>2</sup> ) |  |                          |  |
| <b>Flexibility (ASTM D522 modified)</b>   | Approximately 25%   |                                   |  |                          |  |
| <b>Watertightness under hydrostatic pressure (DIN 1048 mod.)</b>  |   |                                   |  |                          |  |
| <b>Water Pressure</b>   | <b>Penetrated Water</b>   |                                   | <b>Water Absorption</b>                                  |                          |  |
| feet (bar)  | grains  | (grams)                           | <u>grains</u>  | <u>(grams)</u>           |  |
|   |   |                                   | ft <sup>2</sup> • hours                                  | (m <sup>2</sup> • hours) |  |
| 16 (0.5)  | 0   | (0)                               | 0  | (0)                      |  |
| 33 (1)  | 15  | (1)                               | 3  | (2)                      |  |
| 99 (3)  | 31  | (2)                               | 10   | (7)                      |  |
| Rendering mortars absorbing less than 91 grains/ft. <sup>2</sup> • h (64 grams/m <sup>2</sup> • h) are considered watertight. |   |                                   |  |                          |  |
| <b>Vapor Permeability (ASTM E-96)</b>   | U.S. perms: 28 days   |                                   | 18 (not a vapor barrier)                                 |                          |  |
| <b>Carbon Dioxide Diffusion</b>   | Coefficient (μCO <sub>2</sub> )   |                                   | Approximately 35,000, equivalent to 6 inches of concrete |                          |  |
| <b>Water Vapor Diffusion</b>  | Coefficient (μH <sub>2</sub> O)   |                                   | Approximately 500 ("breathable")                         |                          |  |

**How to Use**

|                              |  |
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| <b>Substrate Preparation</b> | Concrete, mortar and masonry surfaces must be clean, free from grease, oil and loosely adhering particles. All surfaces must be as true and flat as possible. An open-textured, sandpaper-like |
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substrate is ideal (CSP-3). All surfaces must be saturated surface dry (SSD), with no standing water at time of application. It is necessary to stop water ingress prior to the application of SikaTop Seal 107. Use a quick setting, waterproof slurry (SikaSet) to seal water leaks.

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| <b>Mixing</b>      | The consistency of the mix can be altered by reducing the amount of Component 'A' (liquid) to be used. Under normal circumstances, when the full quantities of both components are mixed together, a slurry consistency will result. For a trowelable consistency use only 90% of component 'A'. Mix in a clean container by slowly adding the powder component to the liquid component and mixing with slow speed drill and mixing paddle.   |
| <b>Application</b> | <p>SikaTop Seal 107 can be applied by trowel, notched trowel, stiff bristle, or spray equipment. Work the material well into the prepared substrate, filling all pores and voids.</p> <p><b>For brush consistency:</b> Apply the first coat of SikaTop Seal 107 with horizontal brush strokes and leave to harden (4 to 8 hours). Apply the second coat with vertical brush strokes.</p> <p><b>For trowel consistency:</b> Apply the first coat with a notched trowel and leave to harden (4 to 8 hours). Apply the second coat with a flat trowel.</p> <p><b>For spray application:</b> Use a hopper gun spray equipment, textured sprayer (e.g. Texspray E110c), or a rotor/stator pump equipment. Allow the first coat to harden (4 to 8 hours) prior to the application of the second coat.</p> <p>As soon as the mortar layer starts to set, a uniform surface texture can be obtained by rubbing the surface with a fine sponge or a plastic trowel. Do not overwork SikaTop Seal 107 during finishing and avoid the use of additional water. [Where required, a third coat of SikaTop Seal 107 may be applied no later than 24 hours after the second coat (in this case, do not trowel or sponge finish the second coat). If intercoat period exceeds 24 hours, light grit blasting is required prior to further application.]</p> <p><b>Balcony Waterproofing Layer:</b> Fill in any spalled areas in the existing substrate with the appropriate Sika repair mortar as required. Apply an appropriately sized closed cell backer rod along transition (wall-slab) to prevent three-sided adhesion. Apply a continuous cant bead of Sikaflex 11-FC or Sikaflex-2C, to a depth of 1/8" minimum and 1/2 inch thickness. Allow sealant to cure sufficiently.</p> <p>Substrate must be SSD with no standing water at time of application. Apply a 1/16" thick layer of SikaTop Seal 107 over the entire balcony. While the material is still wet apply a "360 degree pull" non-alkaline, woven fiberglass mesh (as manufactured by Bayex, Div. of Bay Mills, Midland, Ontario) to reinforce the 107 layer along static hairline cracks, wall to slab transitions and patched areas. Using trowels remove any wrinkles in the mesh by forcing down into the SikaTop Seal 107. Ensure the mesh is completely embedded and covered with SikaTop Seal 107. If any areas are not covered apply additional SikaTop Seal 107 over top of mesh to cover. Trowel to a smooth uniform finish. Allow curing so that surface can take foot traffic without harming the coating. For a decorative, protective finish, SikaColor Balcony system is then applied.</p> |
| <b>Curing</b>      | As with all cement based products, curing is important. Protect newly applied product against direct sunlight, wind, rain and frost.  |
| <b>Limitations</b> | <ul style="list-style-type: none"> <li>■ If rain is anticipated within 1-2 days after application, the surface should be protected in order to prevent streaking.</li> <li>■ Not an aesthetic coating.</li> <li>■ Minimum ambient and substrate temperatures are 45°F (7°C) and rising at the time of application.</li> <li>■ Maximum application thickness per coat = 80 mils (2 mm). Do not apply less than 20 sq. ft./gal. = 1 m<sup>2</sup>/litre.</li> <li>■ As with all cement based materials, avoid contact with aluminum to prevent adverse chemical reaction and possible product failure. Insulate potential areas of contact by coating aluminum bars, rails, posts etc. with an appropriate epoxy such as Sikadur Hi-Mod 32.</li> <li>■ Allow 2 days of air curing before subjecting SikaTop Seal 107 to submersion.</li> </ul>  |
| <b>Caution</b>     | <p><b>Component 'A' - Irritant</b> - May cause skin/eye/respiratory irritation. Avoid breathing vapors. Use with adequate ventilation. Avoid skin and eye contact. Safety goggles and rubber gloves are recommended.</p> <p><b>Component 'B' - Irritant; suspect carcinogen</b> - Contains portland cement and sand (crystalline silica). Skin and eye irritant. Avoid contact. Dust may cause respiratory tract irritation. Avoid breathing dust. May cause delayed lung injury (Silicosis). IARC lists crystalline silica as having sufficient evidence of carcinogenicity in laboratory animals and limited evidence of carcinogenicity in humans. NTP also lists crystalline silica as a suspect carcinogen. Use of safety goggles and chemical resistant gloves is recommended. If PELs are exceeded, an appropriate, NIOSH approved respirator is required. Remove contaminated clothing.</p>   |
| <b>First Aid</b>   | In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water for 15 minutes, and contact a physician. For respiratory problems, remove person to fresh air.  |
| <b>Clean Up</b>    | In case of spillage, scoop or vacuum into appropriate container, and dispose of in accordance with current, applicable local, state and federal regulations. Keep container tightly closed and in an upright position to prevent spillage and leakage. <b>Mixed components:</b> Uncured material can be removed with water. Cured material can only be removed mechanically.  |

**KEEP CONTAINER TIGHTLY CLOSED • KEEP OUT OF REACH OF CHILDREN • NOT FOR INTERNAL CONSUMPTION • FOR INDUSTRIAL USE ONLY**

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