BUILDING TRUST

PRODUCT DATA SHEET

# Sikagard® PW

CHEMICAL RESISTANT , HIGH BUILD , SOLVENT FREE RESIN BASE EPOXY PROTECTIVE COATING .

## DESCRIPTION

Sikagard® PW is a two component, solvent free, non-toxic epoxy coating with outstanding mechanical and chemical properties.
Therefor it is suitable to use in areas where contact with potable water storage tanks as Sikagard® PW does not support the growth of bacteria , and could be usded where hygienic requirment is needed such as food & beverage and pharmaceutical fields .

## USES

Sikagard® PW may only be used by experienced professionals.

- Could be used on both concrete and steel surfaces .
- As internal lining for tanks , silos and mills .
- Drinking & Potable water contact .
- Water treatment plans & Sewage works .
- Food processing plants .
- Agricultural enterprises .
- Pharmaceutical facilities .
- Hospitals .
- Oil refineries .
- Anti-corrosion coating on steel in chemical facilities as a gas and vapour barrier .
- Power stations .
- Sugar manufacturing plants .

## CHARACTERISTICS / ADVANTAGES

- Suitable for direct contact with potable water
- Easy to clean, tough glossy finish
- Very good resistance to a wide range of chemicals and corrosive vapours
- May be used as part of bridging lamination systems
- Durable
- Sewage resistant
- Solvent free
- Good mechanical and chemical resistant
- High build
- Impervious to liquids to be used as a waterproofing & protective coating

## APPROVALS / CERTIFICATES

For direct contact with drinking water & sewage , issued by the Egyptian National Organisation for Water & Sewage .
Sikagard® PW has been tested as per SCAQMD Rule 1168 .

## PRODUCT INFORMATION

| | |
|---|---|
| **Composition** | Epoxy resin |
| **Packaging** | 10 kg unit ( A+B ) |
| **Colour** | Normally light grey or white color .<br>Other colors are available upon request . |
| **Shelf life** | 12 months from date of production. |
| **Storage conditions** | Store in unopened, undamaged and sealed original packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight, heat and moisture. |

| | |
|---|---|
| **Density** | ~1.57 kg/l (23 °C) |
| **Flash Point** | 140°C |
| **Solid content by weight** | 100% |
| **Solid content by volume** | 100% |
| **Volatile organic compound (VOC) content** | < 100 g/L |

## TECHNICAL INFORMATION

| | |
|---|---|
| **Shore D Hardness** | 80 tested according to ASTM D2240 |
| **Abrasion Resistance** | Medium to High in abrasion |
| **Dry film thickness** | ~ 185 micron per layer for consumption 300 gm/m2 |
| **Tensile Strength** | ~ 12 N/mm2 tested according to ASTM D638 |
| **Tensile Adhesion Strength** | ~ 1.5 N/mm2 tested after 7 days according to ASTM C1583<br>~ 1.2 N/mm2 tested after 7 days according to ASTM D4541 |
| **Chemical Resistance** | Resistant to wide rang of chemicals & acids .<br>Please contact Sika Technical Department for specific information. |
| **Temperature Resistance** | 50°C (dry heat)<br>65°C (wet heat ) , and could reach up to 80°C (wet heat ) temporary . |
| **Permeability to Water Vapour** | Excellent Resistant |
| **Watertightness** | 0.37% Water Absorption tested according to ASTM D570 |
| **Service Temperature** | 5°C to 80°C |
| **System Structure** | Concrete<br>▪ Primer : apply 1 layer of Sikafloor 161 with consumption 150 - 200 gm/m2 , for highly porous surfaces a second layer of primer will be needed .<br>▪ Putty : it is optional stage as it depends of the surface`s profile and if needed it could be performed using a mix of Sikagard® PW ( A+B ) added to fine filler ( C ) with consumption app 150 - 200 gm/m2 of the mix ( A+B+C ) .<br>▪ Top Coats : apply minimum 2 coats of Sikagard® PW ( A+B ) with consumption 250 - 300 gm/m2 per coat .<br>Steel<br>▪ Primer : Apply primer layer using Sika Zinc rich with consumption app 250 - 300 gm/m2<br>▪ Top Coats : apply minimum 2 coats of Sikagard® PW ( A+B ) with consumption 250 - 300 gm/m2 per coat . |

## APPLICATION INFORMATION

| | |
|---|---|
| **Mixing Ratio** | (A : B) = (4 : 1) by weight |
| **Consumption** | ~0.3 kg/m² for a layer-thicknes of 180 micron.<br>This figure is theoretical and does not include for any additional material required due to surface porosity, surface profile, variations in level and wastage etc.. |
| **Ambient Air Temperature** | +5 °C min. / +40 °C max. |
| **Relative Air Humidity** | < 80 % |
| **Dew Point** | Beware of condensation!<br>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. |

| | |
|---|---|
| | Note: Low temperatures and high humidity conditions increase the probability of blooming. |
| **Substrate Temperature** | +5 °C min. / +40 °C max. |
| **Substrate Moisture Content** | < 4 % pbw moisture content.<br>Test method: Sika®-Tramex meter, CM-measurement or Oven-dry-method.<br>No rising moisture according to ASTM (Polyethylene-sheet). |
| **Pot Life** | ~40 min. (20 °C) |
| **Curing Time** | Fully cured after 7 days (25 °C) |
| **Drying time** | 6 - 8 hours @ (25 °C) |
| **Waiting Time / Overcoating** | Min. 4 h (35 °C)<br>Min. 5 h (25 °C)<br>Max. 2 d (25 °C) |

# APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

- The substrate must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 1.5 N/mm²
- The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.
- 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 and surface levelling must be carried out using appropriate products from the 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 or vacuum.
- Steel surfaces should be primed using a suitable Sika® Zinc Rich as anti-corrosion primer.

### MIXING

Stir the contents of the resin (Part A) to disperse settled components, then add the hardener (Part B) and mix thoroughly until a uniform consistency is obtained.

### APPLICATION METHOD / TOOLS

By airless spraying or roller or stiffed brush .

### CLEANING OF EQUIPMENT

Tools and equipment should be cleaned with Sika® Thinner immediately after use. Hardened material can only be removed
mechanically.

# IMPORTANT CONSIDERATIONS

- Do not apply Sikagard® PW on substrates with rising moisture.
- Freshly applied Sikagard® PW should be protected from damp, condensation and water for at least 24 hours.
- Apply on a falling temperature. If applied during rising temperatures “pin holing” may occur from rising air.
- These pinholes can be closed after a soft grinding by applying a scratch coat of Sikafloor®-161 mixed with approximately 3 % of Extender T, or by Sikafloor® PF epoxy putty.
- For potable water application, local authorities / regulations should be followed.
- The cleaning and disinfection procedures of installed membrane surfaces shall be performed according to the requirements of the local Water Authority.

# BASIS OF PRODUCT DATA

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.

# 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.

# ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

## 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

**Sika Egypt**
1st Industrial Zone (A)
Section #10, Block 13035
El Obour City, Egypt
TEL: +202 44810580
FAX: +202 44810459
egy.sika.com