**Sikagard® Duroplast®-150 N**

**UV RESISTANT, HIGH SOLIDS, LOW ODOUR, WATER-BASED AND ANTIMICROBIAL EPOXY WALL COATING IN THREE GLOSS LEVELS: MATTE, SATIN, AND GLOSS**

**Description**
Sikagard® Duroplast®-150 N is a two-part, high solids, low odour, low VOC, fine-textured, pigmented, water-based epoxy wall coating. It produces a durable, easy to clean ceramic-like finish on interior surfaces in a range of gloss levels. Sikagard® Duroplast®-150 N demonstrates superior UV resistance to colour change compared to traditional epoxy coatings. Can be applied over properly prepared and primed, concrete masonry, common steel, or gypsum board substrates. It is fully compatible as a system component (body coat and or top coat) in all Sikagard® Duroplast® epoxy wall coating systems. Sikagard® Duroplast®-150 N contains a Steri-Septic antimicrobial additive that inhibits the growth of bacteria, molds, mildew and fungi for the lifetime of the coating.

**Where to Use**
- Hospitals and medical research facilities.
- Pharmaceutical laboratories and production areas.
- Veterinarian and animal holding areas.
- Educational and recreational premises.
- Commercial kitchens and service corridors.
- Food and beverage processing areas.
- Packaging and storage areas.
- Rest rooms, locker rooms and showers.

**Advantages**
- Durable seamless surface that is easily cleaned and maintained.
- Waterproof, suitable for in-service areas exposed to high humidity.
- Aesthetic, fine textured finish.
- Available in three gloss levels; Matte, Satin and Gloss.
- Unlimited colours, no minimum required
- Superior resistance to UV colour change compared to other epoxy coatings.
- Good chemical and abrasion resistance.
- High solids, low VOC, low odour.
- Fast recoat cure properties are ideal for shutdown or fast turnaround projects.
- Superior resistance to blushing during application and cure, even under severe conditions.
- Excellent opacity and colour hiding capability.
- Contains the Steri-Septic antimicrobial additive which remains permanent.
- Canadian Food Inspection Agency acceptance for use in food plants in Canada.

**Technical Data**

<table>
<thead>
<tr>
<th>Packaging</th>
<th>3.78 L (1 US gal.) and 18.9 L (5 US gal.) units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>RAL 9016 Traffic White. (Gloss, Satin or Matte)</td>
</tr>
<tr>
<td>Custom colours available on request.</td>
<td></td>
</tr>
<tr>
<td>Yield</td>
<td>6.5 - 9.8 m²/L (265 - 400 ft² / US gal.) per coat (4 - 6 mil w.f.t.) (2 - 3 mils d.f.t.)</td>
</tr>
<tr>
<td>Typically two (2) coats are required, though on higher absorbency substrates additional coats maybe required. <strong>Thinning:</strong> cold water - maximum 5% by volume</td>
<td></td>
</tr>
<tr>
<td>Actual coverage rates and material consumption will depend upon porosity and profile of the substrate. Test areas are recommended to establish correct coverage rates.</td>
<td></td>
</tr>
<tr>
<td>Shelf Life</td>
<td>1 year in original, unopened packaging under proper storage conditions. Store dry at temperatures between 5 and 32 °C (41 - 89 °F). Protect from freezing. If frozen, discard. Condition product between 18 and 30 °C (65 - 86 °F) before use.</td>
</tr>
<tr>
<td>Mix Ratio</td>
<td>A:B = 4:1 by volume</td>
</tr>
</tbody>
</table>
Properties at 23 °C (73 °F) and 50 % R.H.

<table>
<thead>
<tr>
<th>Properties</th>
<th>Gloss</th>
<th>Satin &amp; Matte</th>
<th>Pot Life, 250 g (8.8 oz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solids Content, by volume</td>
<td>~ 50 %</td>
<td>~ 40 %</td>
<td>~ 6 hours</td>
</tr>
<tr>
<td>Gloss</td>
<td>~ 50 %</td>
<td>~ 40 %</td>
<td>~ 6 hours</td>
</tr>
<tr>
<td>Satin &amp; Matte</td>
<td>~ 40 %</td>
<td>~ 50 %</td>
<td>~ 6 hours</td>
</tr>
<tr>
<td>Pot Life, 250 g (8.8 oz)</td>
<td>~ 6 hours</td>
<td>~ 50 %</td>
<td>~ 6 hours</td>
</tr>
</tbody>
</table>

Do not apply after six (6) hours even if still liquid, as this will result in lower gloss, loss of chemical resistance and physical properties.

Drying Times

- **Touch dry**: ~ 4 - 5 hours
- **Recoat time**: ~ 6 - 18 hours
- **Full cure**: ~ 7 days

Drying times will vary according to air and substrate temperature and humidity.

**Water Vapour Transmission ASTM E96**

- Procedure B – water
- ~ 3.8 perms

**Abrasion Resistance ASTM D4060**

- Taber Abraser, CS-17 Wheel/1000 g (2.2 lb/1000 cycles): ~ 97 mg loss
- Resistance to Accelerated Weathering ASTM G53
- Slight yellowing
- Chalking after one week

**Tensile Strength ASTM D638**

- 4 mils d.f.t.: ~ 15.5 MPa (2247 psi)

**Elongation ASTM D638**

- 4 mils d.f.t.: ~ 5.3 %

**Pull-off Strength ASTM D7234**

- > 4.2 MPa (> 609 psi) (substrate failure)

**Flame Spread CAN/ULC S-102**

- ~ 15

**Smoke Developed CAN/ULC S-102**

- ~ 35

**VOC Content**

- Gloss: 138 g/L
- Satin: 58 g/L
- Matte: 43 g/L

**Chemical Resistance**

Consult Sika Canada

*Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.*

**HOW TO USE**

**Surface Preparation**

**Gypsum Board:**

To obtain a uniform finish the joint filler compound must be properly installed, finished and fully cured. Small defect, such as pinholes, ridges and fibre-lift, can become very apparent after finishing coats are applied. Some porous joint filler compounds may require an additional application of Sikagard® Duroplast® PS to seal and prime the overall surface to a uniform appearance. Gypsum board manufactured with recycled paper facings, may require additional preparation such as careful sanding and an additional coat of Sikagard® Duroplast® PS primer/sealer to eliminate high suction spots.

**Concrete Masonry:**

Mortar joints shall be allowed to age for a minimum of 28 days prior to application of Sikagard® Duroplast® EE blockfiller. Remove all traces of efflorescence, loose mortar, mortar spatters, residues, oxidation powder and any other foreign matter by scraping and wire brushing. Bug holes, cracks or irregularities should be filled and leveled with Sika® Top® or Sika® MonoTop® mortars as appropriate. Consult Sika Canada for recommendations.

**Concrete Vertical Surfaces:**

New concrete shall be allowed to age for a minimum of 28 days prior to application of Sikagard® Duroplast® EE blockfiller. Formed concrete surfaces must have all traces of form release agent, bond breaker, curing compounds, laitance, oxidation powder and all other foreign matter removed from the surface. Prepare the concrete to produce an open textured, sandpaper-like finish and uniform surface (ICRI / CSP 1 - 2). Bug holes, cracks or irregularities should be filled and leveled with Sika® Top® or Sika® MonoTop® mortars as appropriate. Consult Sika Canada for recommendations.

**Common Steel:**

All steel to be coated must be dry, clean and stable before applying the coating. Remove all existing treatments such as coatings, sealers, wax, and contaminants i.e. dirt, dust, grease, oils, and foreign matter, which will interfere with the adhesion of Sikagard® Cor-Pro-470. Prepare steel substrates by appropriate mechanical means, such as abrasive blast-cleaning in order to achieve clean white metal profile equivalent to SSPC-SP10, Near White Metal, 2 to 4 mils anchor profile and apply primer immediately, before oxidation of the steel occurs.

**Mixing**

Thoroughly pre-stir each component separately to ensure that all solids are distributed throughout and components are consistent within themselves.

Empty Component B in the correct mix ratio to Component A into a suitably sized, clean mixing vessel. Mix the combined components at low-speed (200 - 300 rpm) for at least three (3) minutes with a drill fitted with an Exomixer® type mixing paddle (recommended model) suited to the volume of the mixing container and to minimize entrapping air. During the mixing operation, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once, to ensure complete mixing. When completely mixed, Sikagard® Duroplast®-150 N should be uniform in colour and consistency.

Mix only that quantity which can be used within its pot life.
Application

Any areas of glass or other such surfaces should be covered and masked to protect against contact with the material. It is recommended that suitable cleaning rags and warm water is on hand to remove accidental splashes.

Sikagard® Duroplast®-150 N can be applied by brush, roller or spray equipment, whichever is the most suitable to the surfaces to be coated or site conditions and limitations. For spray applications, contact spray equipment specialists to determine suitable equipment and for application advise (thinning maybe required) contact Sika Canada.

Sikagard® Duroplast®-150 N must be applied in a workman-like manner using skilled and trade qualified applicators. The film thicknesses stated must be produced and complete coverage achieved.

After application and prior to drying, remove masking tape in between each coat to avoid ‘ripping’ in the finished coating and let surfaces dry completely. Following cure of body coats, sand off any rough spots and visible defects with a fine sandpaper (120 - 220 grit), then vacuum and wipe surface to remove all residual traces of sanding dust before the application of the final top coat.

Clean Up

Collect and contain spills with absorbent product. Discard in accordance with applicable regulations. Once hardened, product can only be removed mechanically. Clean tools and brushes with Sika® Epoxy Cleaner cleaning solvent. Wash soiled hands and skin thoroughly in hot soapy water or use Sika® Hand Cleaner towels.

Limitations

- Unlike most other systems, this material does not become hard after pot life has expired, it remains liquid during a prolonged period. However, if pot life is exceeded, application will result in a lower gloss, loss of chemical resistance and physical properties of surface. DO NOT APPLY AFTER 6 HOURS EVEN IF STILL LIQUID.
- If thinned with water, always add the same quantity of water in order to minimize color and finish variations that may occur.
- Not suitable for use as a traffic bearing surface or as a roofing material.
- Minimum age of concrete and masonry surfaces prior to application is 28 days, depending on curing and drying conditions.
- Moisture content of concrete, masonry surfaces, gypsum board and plaster must be below 85 % (green zone on the reference scale) when measured with a calibrated electronic moisture meter (Delmhorst Model BD-10).
- Minimum age of SikaTop® or Sika MonoTop® mortars prior to application is three (3) days, depending on curing and drying conditions. Moisture content must be no greater than 4 % when measured with a calibrated moisture meter for concrete (Tramex).
- Substrate temperature must be at least 3 °C (3.5 °F) above the measured dew point.
- Maximum relative humidity during application and cure: 85 %.
- Minimum substrate and air temperature: 10 °C (50 °F) 24 hours before, during and after coating application.
- Do not apply onto porous surfaces where moisture vapour transmission will occur during application.
- Apply product to dry, clean, properly cured and prepared surfaces in areas where dust is no longer generated by construction activities such that airborne particles will not reduce bond of coating or adhere to the surface, affecting the quality of subsequently applied finishes.
- When over-coating existing coatings, compatibility and adhesion testing is recommended and existing coating must be acknowledged as determining the adhesion and performance of all subsequently applied materials.
- Do not hand mix Sikagard® materials; mechanical mix only.
- Protect from dampness, condensation and water contact during the initial 24 hour cure period.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

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, within their shelflife. 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca