Sikalastic®-8200
LOW MODULUS, HIGH STRENGTH, MOISTURE-INSENSITIVE, MODIFIED EPOXY RESIN FOR SKID-RESISTANT CONCRETE OVERLAYS AND PATCHING MORTARS

Description
Sikalastic®-8200 is a two-component, 100 % solids, flexible, urethane-modified epoxy resin. It is designed and widely used as binder for fast-setting, skid-resistant concrete overlays or patching mortars.

Where to Use
- Recommended as a wear course for high traffic areas such as ramps and turning points in parking decks.
- May also be used as a wear course for the Sikalastic® system for heavy use locations.
- Multi-purpose binder may be used to produce heavy-duty patching mortars.
- As a waterproof, skid and wear resistant overlay for critical, high demand floors in warehouses, logistics facilities, etc.

Advantages
- Convenient, easy mix ratio A:B = 1:1 by volume.
- Economical and easy to apply system.
- Lighter than concrete overlays so reduces dead load on suspended slabs.
- Excellent abrasion and wear resistance.
- Excellent bond strength to properly prepared substrates.
- Low modulus of elasticity, tolerating thermal movement of the substrate.
- Resistant to chlorides, oil, gasoline and other chemicals.
- Canadian Food Inspection Agency acceptance.
- Meets LEED® requirements.

Technical Data

Packaging
37.8 L (10 US gal.) units

Colour
RAL 7012 Basalt Grey, RAL 7015 Slate Grey, RAL 7046 Telegrey 2, RAL 9017 Traffic Black
Special colours available on request.

Yield
Partial broadcast: 1.3 - 2.0 m²/L (55 - 80 ft²/US gal.) at 20 - 30 mils w.f.t.
Typically one (1) coat is required.

Full broadcast: 0.9 - 1.2 m²/L (35 - 50 ft²/US gal.) at 34 - 45 mils w.f.t., plus 1 or 2 grout coats at 3 m²/L (123 ft²/US gal.) at 13 mils per coat to obtain the surface finish as required.

On highly absorbent substrates, additional coats maybe required. Actual coverage rates and material consumption will depend upon porosity and profile of the substrate. Test areas are recommended to establish correct coverage rates.

Shelf Life
1 year in original, unopened packaging under proper storage conditions. Store dry between 5 - 32 °C (41 - 89 °F). Condition product at temperatures between 18 and 30 °C (65 and 86 °F) before use.

Mix Ratio
A:B= 1:1 by volume

Properties

Pot Life, 250 g (8.8 oz) Approx. 45 minutes

Recoat time 8 hours

Light traffic 16 - 24 hours

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

BINDER ONLY, cured 7 days at 25 °C (77 °F)

Water Absorption ASTM D570
24 hours 0.30 %
7 days 0.80 %
2 hours boiling 0.74 %

Tensile Strength ASTM D638 M
Type M-1 26.2 MPa (3800 psi)

Tensile Elongation ASTM D638 M
Type M-1 30 %

Compressive Strength ASTM D695
Cyl. ½ " diam. 40.2 MPa (5830 psi) at 7 % deformation (reversible)
96.1 MPa (13 935 psi) at 50 % deformation (permanent)

Tear strength ASTM D624
Die C 174.1 N/mm (995 lb/in. li)

Hardness ASTM D2240
Shore D 75
**MORTAR, cured 7 days at 25 °C (77 °F)**
The tests were executed on the Sikalastic®-8200 mortar composed with:
100 cc of part A
100 cc of part B
500 cc of 24 mesh silica

**Compressive Strength ASTM C79 Mod.**
50 X 50 mm $^3$ 69.7 MPa (10 106 psi)

**Modules of Elasticity ASTM C109**
50 X 50 mm $^2$ 1208 MPa (175 160 psi)

**Thermal Compatibility with concrete ASTM C884**
6 mm thick, 10 cycles
-21 °C to 23 °C (-6 °F to 73 °F) Passes

**Absorption Volume of Permeable Voids ASTM C642**
50 X 50 mm oven dry 2 days at 60 °C 0.49 %

**FULL BROADCAST, with 24 mesh silica + 1 grout and topcoated with Sikafloor® Duochem-942, cured 7 days @ 25 °C (77 °F)**

**Bond strength to concrete ASTM D4541**
5.3 MPa (765 psi) concrete failure

**Thermal Compatibility to Concrete ASTM C884**
3 mm thick 10 cycles
-21 °C to 23 °C (-6 °F to 73 °F) Passes

**Abrasiv Resistance ASTM D4606**
Taber Abraser, CS-17 and H-22 Wheels/ 1000 g (2.2 lb)/1000 cycles
61 mg (CS-17) 310 mg (H-22)

**Static Coefficient of Friction ASTM C1028**
Dry surface 0.88
Wet surface 0.78

**VOC Content**
< 5 g/L (< 0.04 lb/US gal.)

**Chemical Resistance**
Consult Sika Canada

Test report available upon request.

* Standard 28 Mpa concrete exhibits 3872 mg loss when tested as per this procedure.

**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

#### Broadcast Overlay System

**Surface Preparation**
The concrete surface must be clean and sound. Remove all dust, laitance, grease, oil, dirt, curing agents, impregnations, wax, foreign matter and any other bond inhibiting substances from the substrate by appropriate mechanical means, such as shot blasting, in order to achieve a clean surface profile equivalent to ICRI/CSP 3 - 5. Blow off any dust, debris or preparation residue from the surface using oil-free compressed air. The compressive strength of the concrete substrate should be at least 25 MPa (3625 psi) at 28 days and at least 1.5 MPa (218 psi) in tension at the time of application of Sikalastic®-8200. Repair any surface defects using an appropriate Sika® repair mortar before beginning the installation of the broadcast overlay system.

Consult Canada for advice and recommendations.

**Localised Patching Mortar**
Remove all deteriorated concrete, dirt, oil, grease, other bond inhibiting materials from substrate within repair site. Sawcut a square or rectangular, vertical edge, to a minimum of 13 mm (½ in) deep, around the perimeter of the area to be patched. Preparation work should be carried out by chipping and sandblasting or other appropriate mechanical means. Obtain substrate aggregate fracture with a minimum surface profile of ± 3 mm (1/8 in) (ICRI/CSP 6 - 9). Ensure that area to be repaired is dry, clean and sound prior to applying the Sikalastic®-8200 mortar.

**Note:** Do not apply Sikalastic®-8200 mortars to wet surfaces.

**For Application over Sikalastic®-390 Membrane**
Apply onto cured Sikalastic®-390 Membrane within the acceptable recoat time of 6 to 24 hours at 23 °C (73 °F). If recoat time is not respected, then mechanical abrasion followed by the application of Sikalastic® Recoat Primer (see the Product Data Sheet for instruction) before the application of Sikalastic®-8200.

#### Mixing

**Broadcast Overlay System**
Pre-stir each Component separately. Empty Component A and B, in the correct mix ratio, into a clean, suitably sized mixing vessel. Mix the combined Components for five (5) minutes, using a low-speed electric drill (300 - 450 rpm) fitted with an Exomixer® type mixing paddle, (recommended model) minimizing entrapping air while mixing. Ensure that the mixing equipment being used is suited to the volume of the mixing container. During the mixing operation, scrape down the sides and bottom of the mixing container with a flat or straight edge trowel at least once to ensure complete mixing. When completely mixed, Sikalastic®-8200 should be uniform in colour and consistency. Mix only that quantity which can be used within its pot life.

**Localised Patching Mortar**
Pre-stir each Component separately. Empty Component A and B, in the correct mix ratio, into a clean, suitably sized mixing vessel. Mix Components A and B together for five (5) minutes at low speed (300 - 450 rpm) with a 13 mm (1/2 in) drive drill fitted with an Exomixer® type mixing paddle. Slowly add the oven-dried aggregate and continue mixing until all of the aggregate is wetted out and the mix is lump-free and homogenous.

**Note:** Mix only quantities that can be used within the gel time of the material.
Partial Broadcast Overlay System:
Apply neat Sikalastic®-8200 by notched squeegee at the rate of 1.3 - 2.0 m²/L (55 - 80 ft²/US gal.) then broadcast the selected aggregate into the wet resin, to partial saturation and backroll to fully encapsulate. The aggregate should be washed, oven-dried, angular-grained silica sand (#24, 30 or 40 mesh depending on desired finish) or Trap rock. The silica sand or basalt should have a minimum MOHS scale hardness of 7, unless otherwise approved. Allow sufficient final cure time (as per Minimum Drying Times in Properties section above) before opening to traffic.

Full Broadcast Overlay System:
Apply neat Sikalastic®-8200 by notched squeegee at the rate of 0.9 - 1.2 m²/L (35 - 50 ft²/US gal.) then broadcast the selected aggregate into the wet resin to refusal. The aggregate should be washed, oven-dried, angular-grained silica sand (#24, 30 or 40 mesh depending on desired finish) or Trap rock. The silica sand or basalt should have a minimum MOHS scale hardness of 7, unless otherwise approved.

After initial cure of first layer (as per Minimum Drying Times in Properties section above), remove excess aggregate.

Note: DO NOT open to traffic. Not suitable as a traffic bearing surfacing at this juncture.

Apply one (1) or two (2) grout coats at approximately 3 m²/L (123 ft²/US gal.) per coat to obtain the surface finish as required. Allow sufficient final cure time (as per Minimum Drying Times in Properties section above) before opening to traffic.

Localised Patching Mortar:
Prime patch area with mixed components A and B with brush or roller. Immediately place patching mortar and strike off level with adjacent concrete surface then thoroughly compact and finish the surface. The finished patch should be level and not higher than the surrounding substrate. If necessary, high points may be ground after hardening.

Clean Up
Sweep aggregate into appropriate containers. Dispose of in accordance with applicable local regulations. Uncured Sikalastic®-8200 can be removed with Sika® Epoxy Cleaner cleaning solvent. Cured product can only be removed mechanically. Wash soiled hands and skin thoroughly in hot soapy water or use Sika® Hand Cleaner towels.

Limitations
- Minimum age of concrete must be 28 days prior to applying Sikalastic®-8200.
- Minimum/maximum ambient and substrate temperature during application and cure: 10 °C / 32 °C (50 °F / 90 °F).
- Monitoring of ambient and substrate temperature should always be done when applying polyurethane coatings. Note that low temperatures and low humidity will slow down the cure, and high temperature and high humidity will accelerate it. For applications outside of this temperature range, contact Sika Canada.
- Do not use where concrete moisture content is greater than 4 % (pbw - parts by weight) without consultation with Sika Canada.
- When concrete moisture content is greater than 4 % but ≤ 6 % (pbw - parts by weight) when measured with a Tramex® CME or CMEExpert type concrete moisture meter, prime with Sikalastic® MT Primer. If moisture content exceeds 6 %, use Sikafloor®-81 EpoCem®.C.
- Maximum relative humidity during application and cure: 85 %.
- Protect from dampness, condensation and water contact during the initial 24 hour cure period.
- Surface sweat/blush may form under unfavourable climate conditions (cold or humid) which can generally be removed with water, otherwise sand mechanically then reactivate with Sika® Epoxy Cleaner. Ensure proper drying before recoating.
- Substrate temperature must be 3 °C (5.5 °F) above the measured dew point.
- Do not apply to porous surfaces where moisture vapour transmission will occur during application.
- Do not thin with solvents.
- Material must not be mixed by hand: mechanically mix only.
- Material forms a vapour barrier after cure.

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