



PRODUCT DATA SHEET

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QUARTZ FLOORING

Sikafloor® Quartzite® Trowel System

DECORATIVE EPOXY MULTICOLOURED QUARTZ TROWEL FINISH

Description	Sikafloor® Quartzite Trowel System is a seamless, aesthetic, 3 - 6 mm (1/8 - 1/4 in) thick, trowelled and sealed epoxy floor, composed of multicoloured quartz aggregates finished with transparent top coats. The system provides a durable, impermeable finish with superior mechanical and chemical resistance. Final surface appearance options include: integral cove base, gloss, satin or matte surface sheen and variable surface texture to produce a range of slip-resistant finishes.
Where to Use	<ul style="list-style-type: none"> ▪ Grocery stores. ▪ Food packing rooms. ▪ Commercial kitchens. ▪ Department stores. ▪ Factories. ▪ Pharmaceutical laboratories and offices. ▪ Hospitals, laboratories and health care facilities. ▪ Museums and galleries. ▪ Banks, office and government buildings. ▪ Recreational facilities, change rooms and showers
Advantages	<ul style="list-style-type: none"> ▪ Durable and seamless. ▪ Impermeable. ▪ Superior mechanical and chemical resistance. ▪ Superior aesthetic finish. ▪ Provides a cleaner, safer and more sanitary work environment. ▪ Low maintenance. ▪ Does not support growth of bacteria or fungus. ▪ High density prevents dirt penetration, which provides easy cleaning. ▪ Low odour / low VOC. ▪ Integral base and curbs can be prepared without seams or joints. ▪ Glossy aesthetic finish. ▪ Optional satin or matte surface sheen. ▪ Optional crack bridging, flexible membrane available. ▪ Available in 12 standard colour patterns. ▪ Canadian Food Inspection Agency acceptance.

Technical Data

Packaging	<p>Sikafloor®-156^{CA} 10 L (2.6 US gal.) and 30 L (7.9 US gal.) units</p> <p>Sikafloor® Trowel Quartz Aggregate 22.7 kg (50 lb.) bag</p> <p>Sikafloor® Duochem-9200 28.35 L (7.48 US gal.) unit</p> <p>Sikafloor®-2002 10 L (2.6 US gal.) and 30 L (7.9 US gal.) units</p>
Colour	12 standard colour patterns, see Sikafloor® Quartzite® Colour Guide (custom colour blends available on request)
Yield	
Primer	Sikafloor®-156^{CA} 4 m ² /L (160 ft ² /US gal.) at 10 mils w.ft.
Mortar	Sikafloor®-156^{CA} Mix one 10 L (2.6 US gal.) unit of Sikafloor®-156 ^{CA} with 80 kg (176 lb) of Sikafloor® Trowel Quartz Aggregate. This will yield 55 L (1.9 ft ³) of Sikafloor® Trowel Quartz mortar. Applied 3 mm (1/8 in) thick, this will provide coverage of 18 m ² (195 ft ²). Applied 6 mm (1/4 in) thick, this will provide coverage of 9 m ² (97 ft ²).
Grout Coat	Sikafloor® Duochem-9200 5 - 7 m ² /L (203 - 285 ft ² / US gal) at 6 - 8 mils w.ft.
Top Coat	Sikafloor®-2002 2 - 4 m ² /L (80 - 160 ft ² / US gal.) at 10 - 20 mils w.ft. NOTE: Yield and coverage figures provided above do not allow for surface profile, porosity or wastage
Shelf Life	2 years for resins in original unopened packaging. Store dry between 5 and 32 °C (41 and 89 °F). Condition product between 18 and 30 °C (65 and 86 °F) before using.

Properties at 23 °C (73 °F) and 50 % R.H.

Service Temperature	(min. / max.) 0 °C / 50 °C (32 °F / 122 °F)
Drying Times	Refer to Sikafloor®-156 ^{CA} , Sikafloor® Duochem-9200 and Sikafloor®-2002 product data sheets
Cure Time (completed system)	
Foot Traffic	12 hour
Light Traffic	3 days
Normal Traffic	7 days
Chemical Exposure	7 days
<i>Drying times will vary according to air and substrate temperature and humidity.</i>	
Shore D Hardness ASTM D2240	85
Compressive Strength ASTM C579	
5-6 mm/minute	47.8 MPa (6931 psi)
Tensile Strength ASTM C307	
5-6 mm/minute	6.7 MPa (972 psi)
Flexural Strength ASTM C580	
22.9 cm (9 in) at 3.4 mm/min	11.1 MPa (1610 psi)
Modulus of Elasticity in Flexion ASTM C580	
22.9 cm (9 in) at 3.4 mm/min	4296 MPa (622 920 psi)
Bond Strength ASTM D4541	> 4.9 MPa (> 609 psi) (substrate failure)
Flammability ASTM D635	Self-extinguish
Water Permeability and Absorption ASTM D570	
24 hours permeability	2.1 g/m ²
24 hours immersion	0.18 %
7 days immersion	0.30 %
2 hours immersion in boiling water	1.74 %

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**

The concrete surface must be clean and sound. Remove any dust, laitance, grease, oil, dirt, curing agents, impregnations, wax, foreign matters, coatings and deleterious material from the surface by any appropriate mechanical means, in order to achieve a profile equivalent to ICRI-CSP 3-4. The compressive strength of the concrete 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 Sikafloor®-156^{CA}.

Mixing**Prime Coat - Screed Mortar Resin- Grout Coat and Top Coat**

Pre-stir each component separately. Into a clean and suitably sized mixing vessel, measure and empty Component B in the correct mix ratio to Component A (see individual Product Data Sheets for specific product mix ratio information). Mix the combined components for at least three (3) minutes, using a low-speed drill (300 - 450 rpm) to minimize entrapping air. Use an *Exomixer*® type mixing paddle (recommended model) suited to the size of the mixing container. During the mixing operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing. The combined Sikafloor® liquids should be uniform in colour and consistency. Mix only that quantity which can be used within its pot life.

Screed Mortar

Transfer the mixed Sikafloor®-156^{CA} binder (Components A+B) into a suitable Kol type mixer; incorporating a motor spun mixing pail and a shear angle mixing blade. Gradually add Sikafloor® Trowel Quartz Aggregate (Component C) to the binder to avoid excessive air entrapment. Once all ingredients are combined, mix continuously and thoroughly for three (3) minutes to ensure complete mixing. During the mixing operations, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete blending of all components. Mix only that quantity which can be used within its pot life.

Application

Prime Coat: Apply the Sikafloor®-156^{CA} primer using a squeegee and backroll to achieve uniform coverage. **Note:** Mortar must be placed onto wet primer, if the primer becomes tack-free, re-prime the substrate.

Screed Mortar: Maintain all control joints and expansion joints through the screed where movement is expected. Place Sikafloor® Trowel Quartz mortar onto the wet Sikafloor®-156^{CA} primer and uniformly spread to desired thickness. Allow loose mortar to stand for a few minutes to permit entrapped air to escape. Using a non-marking stainless steel finishing trowel, uniformly compact and smooth the surface. Screed around drains, at elevation changes or terminations must be folded into squared and keyed recesses to maintain a minimum 3 - 6 mm (1/8 - 1/4 in) thickness. **Note: Do not feather edge.**

Grout Coat: Allow mortar to cure sufficiently, to support foot traffic without damaging the surface; then apply one or two grout coats, using Sikafloor®-9200 resin (A + B) to fill and seal the pores, without ponding. Allow grout coat to cure properly, sanding lightly to remove imperfections between coats when necessary. Remove all sanding debris using an industrial vacuum. Second grout coat may not be necessary if aggregate mix is more resinous and/or has been well compacted by trowel. The grout coat should fill and seal the screed mortar and leave a thin film on the surface.

Top Coat: After grout coat has hardened sufficiently, sand lightly to remove imperfections. Remove all sanding debris using an industrial vacuum. Apply Sikafloor®-2002 top coat using a non-marking squeegee or flexible steel trowel, followed by backrolling to provide a uniform texture and gloss finish. Refer to specific product data sheet for further details.

Optional Top Coats: can be applied to change the surface sheen; Sikafloor®-317 will produce a matte appearance Sikafloor®-318 will produce a satin finish. Sika Canada strongly recommends that a test area be applied to confirm specific top coat selection and application rates required to produce the desired final appearance.

Clean Up Clean all tools and equipment with Sika® Epoxy Cleaner. Once hardened, product can only be removed mechanically. Wash soiled hands and skin thoroughly in hot soapy water or use Sika® Hand Cleaner towels.

- Limitations**
- Sikafloor® Quartzite® Trowel System is best installed by experienced applicators. Consult Sika Canada Technical Sales for advice and recommendations.
 - Not suitable for use on exterior, slab-on-grade concrete substrates.
 - Minimum / Maximum substrate temperature 10 °C/30 °C (50°F/86 °F).
 - Maximum relative humidity during application and cure: 85 %.
 - Substrate temperature must be 3 °C (5.5 °F) above the measured dew point.
 - Moisture content of the substrate must be < 4 % when coating is applied or use Sikafloor®-81 EpoCem®^{CA} as an underlying moisture/vapour control measure.
 - Do not apply to porous surfaces where moisture vapour transmission will occur during application.
 - Do not hand mix Sikafloor® materials; mechanical mix only.
 - Protect from dampness, condensation and water contact during the initial 24 hour cure period.
 - Surface may discolour in areas exposed to constant ultraviolet light.
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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

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