



PRODUCT DATA SHEET

Sika® EmeriCrete® Topping

HEAVY-DUTY, NATURAL EMERY AGGREGATE TOPPING

PRODUCT DESCRIPTION

Sika® EmeriCrete® Topping provides superior heavy-duty protection in areas subject to extreme abrasion and impact conditions where conventional concrete can wear very rapidly. It contains premium quality, carefully graded emery aggregate, cement, plasticizer and wetting agents specifically formulated for installation at 19 mm to 37 mm (¾ in to 1½ in) thickness. It can be applied to fresh concrete slabs as a monolithic topping or to hardened concrete slabs as a separately bonded topping. Its non-rusting characteristics and high density make it suitable for interior or exterior exposure.

WHERE TO USE

Sika® EmeriCrete® Topping may only be used by experienced professionals.

Typical installation areas include:

- Waste and recycling tipping floors
- Heavy industrial plants
- Metal workshops and foundries
- Heavy equipment repair facilities
- Sluiceways
- Power generating stations
- Upgrading of existing plain slabs

CHARACTERISTICS / ADVANTAGES

- Sika® EmeriCrete® Topping is premixed and ready-to-use.
- Selective sourcing, crushing and grading of premium grade high aluminium oxide (Al_2O_3) and iron oxide (Fe_2O_3) content emery mineral, produces superior aggregates that are pre-mix in factory with other ingredients to ensure a consistent high quality material of screedable consistency.
- Superior abrasion and impact resistance provides years of service life under the harshest conditions.
- High surface density improves resistance to oil, grease and liquid penetration.
- Non-rusting materials make it suitable for interior or exterior applications and wet service areas.
- Intense heat resistance - maximum 290 °C (554 °F).
- Can be finished with a surface texture to provide increased traction.

APPROVALS / CERTIFICATES

- Meets requirements of CFIA and USDA for use in food plants.

PRODUCT INFORMATION

CSC MasterFormat®

03 53 13 | EMERY-AGGREGATE CONCRETE TOPPING

Composition / Manufacturing

Chemical Analysis of Aggregate

- Al_2O_3 ≥ 58 %
- Fe_2O_3 ≥ 24 %
- SiO_2 4 % to 8 %

Soundness

~6.1%

(ASTM C88)

Packaging

1360 kg (2998 lb) bulk bag

Shelf Life

1 year in original, unopened packaging.

Storage Conditions

Store dry, ensuring that product is not exposed to rain, condensation or high humidity. Do not expose product to moisture as it may cause it to harden.

Appearance / Colour

Natural Concrete Grey

TECHNICAL INFORMATION

Abrasion Resistance

~0.457 mm (~0.018 in) at 60 minutes

(ASTM C779)
Procedure A

Surface Hardness

~8.5 (polyhedral particle shape)

(Moh's Scale)

Compressive Strength

24 hours	> 30 MPa (> 4350 psi)
7 days	> 56 MPa (> 8125 psi)
28 days	> 70 MPa (10150 psi)

(ASTM C109)

APPLICATION INFORMATION

Mixing Ratio

Mix with clean potable water at rate of
109 L to 122 L (28 US gal. to 32 US gal.)
per 1360 kg (2998 lb) bulk bag

Fresh Mortar Density

~ 3045 kg/m³ (~190 lb/ft³) mixed

Consumption

Thickness

19 mm (¾ in)
25 mm (1 in)
37 mm (1½ in)

Consumption

~ 59 kg/m ² (~12 lb/ft ²)
~ 78 kg/m ² (~16 lb/ft ²)
~ 117 kg/m ² (~24 lb/ft ²)

BASIS OF PRODUCT DATA

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.

Properties tested at 23 °C (73 °F) and 50 % R.H. unless stated otherwise.

LIMITATIONS

- Sika® EmeriCrete® Topping is best installed by skilled and experienced applicators. Consult Sika Canada Technical Sales for advise and recommendations.
- Important: protect stored material from exposure to rain, condensation and high humidity as moisture may penetrate packaging, causing lumps.
- For best results, condition product to 16 °C to 25 °C (61 °F to 77 °F) prior to mixing and installation. Lower temperatures may result in slower strength development and longer cure times.
- For application as a monolithic topping on base concrete incorporating Supplementary Cementitious Materials or other additives, contact Sika Canada.

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BUILDING TRUST
CONSTRUIRE LA CONFIANCE



- Care must be taken during the base concrete design and production stages to select material constituents and mix designs that will avoid excessive or delayed bleeding which can result in delamination of the topping.
- The total air content of the base concrete must not exceed 3 % at the point placement.
- Protect installation area from direct sunlight and windy conditions that can cause rapid surface drying of the concrete.
- Proper curing and sealing is required in accordance with CSA A23.1 - 2019 Clause 7.8.2.
- Do not use in areas exposed to acids or other chemicals that are known to rapidly deteriorate concrete.

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

NOTES ON INSTALLATION

Consult appropriate sections of CSA A23.1 -2019 and ACI 302 1R-15 for design and installation guidance. Job site conditions can influence surface drying and set time affecting the timing of topping application and finishing procedures. Experience is required to determine proper timing for required procedures.

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COLD WEATHER CONDITIONS:

Open flame heaters shall not be used. Space heaters must be properly vented to avoid floor surface damage caused by carbonation or contamination.

HOT OR WINDY CONDITIONS:

Hot or windy conditions may require adjustments to application procedures to offset rapid setting of concrete surface. Ideally the building will have a roof and walls in place to protect from direct environment. Consider Sikafilm® to protect concrete from the effects of excessive moisture loss in rapid drying conditions.

APPLICATION

Sika® EmeriCrete® Topping may be applied as a monolithic topping or separately bonded topping.

MONOLITHIC TOPPING:

Proceeds with application once the surface is firm enough to support the weight of workmen and their equipment and no standing water is present on the surface. The surface is power-floated and Sika® EmeriCrete® Topping is applied as a mortar to the desired thickness, consolidated, compacted and finished according to project specifications.

SEPERATE TOPPING:

Concrete must be clean, dry, sound and free of all contaminants. The surface must be mechanically roughened to provide a minimum 3 mm (1/8 in) profile ICRI / CSP 6. Edges and joints should be mechanically pinned to resist curling. Sikadur®-32 Hi-Mod or SikaTop® Armatec-110 EpoCem® should be applied to the parent concrete prior to application of the new topping material. Sika® EmeriCrete® Topping must be installed over tacky primer to the desired thickness, consolidated, compacted and finished according to project specifications.

ADDITIONAL INFORMATION:

Sika® EmeriCrete® Topping Installation Guidelines are available on request to provide more detailed application information. Please consult your local Sika Canada Representative to obtain the correct Method Statement document.

CURING TREATMENT

Wet cure the topping using Sika® UltraCure NCF™ Single-Use Wet Curing Blanket for a minimum of seven (7) days at a minimum temperature of 10 °C (50 °F). Curing is to begin as soon after final finishing as possible and when foot traffic will not damage the finish.

CLEAN UP

Clean all tools and equipment promptly with water. Remove hardened product mechanically.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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 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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