

Sikagard® 75 EpoCem^{CA}

Epoxy/Cement, Resurfacing and Pore-Filling Mortar

Description Sikagard® 75 EpoCem^{CA} is a three-component, epoxy-modified, cementitious, solvent-free, moisture-insensitive, structural resurfacing and pore-filling mortar. It is specially formulated for vertical levelling and structural reprofiling of damp, "green" or saturated surface dry concrete.

Where to Use **For resurfacing 0.5 - 3 mm (20 - 120 mils) thick:**

- On green or damp concrete, mortar and stone.
- As a thin-film sealer coat for vertical and horizontal surfaces.
- As a temporary moisture barrier prior to the application of polymer coatings (minimum 2 mm (80 mils) thickness). **Note:** Sikagard® 75 EpoCem^{CA} must be sealed with a suitable Sika® epoxy coating to form a permanent vapour barrier. Contact Sika Canada Technical Sales for a recommendation.
- For repairing spalled and pitted concrete, blowholes and honeycombing.
- Ideal for the repair of damp or saturated substrates such as sewage treatment plants, water treatment plants, tanks, tunnels, drains, etc.
- On grade, above and below grade on concrete.

Advantages

- Economical structural repair and resurfacing compound.
- Fast and easy to apply.
- Sprayable.
- Solvent-free and virtually odourless.
- Can be overcoated with polymer based (epoxy) coatings after 24 hours.
- Eliminates effects of osmotic blistering.
- Self-priming.
- Waterproof.
- Permeable to water vapour (allows substrate to "breathe").
- Compatible with coefficient of thermal expansion of concrete.
- Excellent adhesion to damp concrete.
- Equally suitable for interior and exterior use.

Technical Data

Packaging	23 kg (51 lb) unit		
Colour	Dark Grey, when mixed		
Yield	11.3 L (3 US gal.) will cover approx. 5.5 m ² /unit (59 ft ² /unit) when applied to its required thickness of 2 mm (80 mils)		
Shelf Life	1 year in original, unopened packaging. Store dry between 5 and 32°C (41 and 89°F). Protect from freezing and high temperatures. If frozen, discard.		
Mix Ratio by weight	Component A	1.07	
	Component B	2.93	
	Component C	16 - 19 depending on consistency required	
Application Time	10°C* (50°F)	20°C* (68°F)	30°C* (86°F)
Pot life (A+B+C)	45 min**	35 min**	25 min**
Top coat with epoxy coating	1 day	18 hr	12 hr
Light mechanical loading	3 days	2 days	1 days
Final cure	14 days	7 days	5 days

**Do not use after this period

Finishing Time Approx. 45 min to 2 hrs after combining components depending on temperature, relative humidity and type of finish required.

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

Compressive Strength ASTM C579-B, MPa (psi)	10°C* (50°F)	20°C* (68°F)	30°C* (86°F)
1 day	7 (1015)	15 (2176)	19 (2757)
7 days	35 (5078)	44 (6384)	47 (6819)
28 days	45 (6529)	55 (7980)	54 (7835)

Bond Strength CAN/CSA A23.2-6B Greater than concrete

Setting Time ASTM C266

Initial 4 - 5 hrs
Final 7 - 8 hrs

Coefficient of Thermal Expansion ASTM C531 9,9 X 10⁻⁶/°C (5,5 x 10⁻⁶/°F)

*Product cured and tested at the temperatures indicated.

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

Concrete: Blast clean using mechanical methods.

Surface must be sound and clean and free from all traces of loose material, laitance, oil, grease and bond inhibiting materials. Surface must be open-pore and textured (CSP 4-5). Dampen surface to be repaired with clean water. Substrate should be saturated surface dry (SSD) prior to application.

Steel: Sandblast to white metal (SP-10) finish.

Mixing

Pre-mix component A and component B by shaking vigorously in their respective containers for 30 seconds. Pour the binder mixture (A + B) into a clean, dry 20 L (5 US gal.) pail. Slowly add the entire contents of component C while continuing to mix for 3 minutes, using a Sika paddle on a low speed drill (300 - 450 rpm) until blend is uniform in colour and free of lumps.

Application

At the time of application, surface should be saturated surface dry (SSD). Sikagard® 75 EpoCem^{CA} can be applied to the prepared substrate with a trowel and hock. A lightly moistened rubber sponge float or mason's brush may be used as required to provide a fine textured finish. A steel trowel may be used to provide a denser, smooth finish. To repair surface irregularities and holes greater than 3 mm (120 mils) in depth, consult Sika Canada Technical Service.

Alternatively, Sikagard® 75 EpoCem^{CA} may be spray applied. For spray application information, contact Sika Canada Technical Service.

Clean Up

Uncured material may be removed from tools with water. Cured product can only be removed mechanically.

Limitations

- Maximum thickness of coating: 3 mm/coat (120 mils/layer).
- Minimum substrate temperature: 8°C (46°F).
- Maximum substrate temperature: 25°C (77°F).
- Do not dilute with water.
- Maximum relative humidity: 75%.
- Maximum moisture content of concrete: 12%.
- Protect EpoCem® resin (A+B) from freezing. If frozen, discard.
- Do not use on surfaces exhibiting hydrostatic pressure.
- Maximum overcoating time: 3 days at 20°C (68°F).
- Maximum moisture content of EpoCem® layer prior to the application of a polymer based coating: 4% by weight.

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 Material 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 shelf life. 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under www.sika.ca.

Sika Canada Inc.

Quebec

601 Delmar Avenue
Pointe-Claire, QC H9R 4A9
Tel.: 514-697-2610
Fax: 514-697-3087

Ontario

6915 Davand Drive
Mississauga, ON L5T 1L5
Tel.: 905-795-3177
Fax: 905-795-3192

Alberta

18131-114th Avenue N.W.
Edmonton, AB T5S 1T8
Tel.: 780-486-6111
Fax: 780-483-1580

1-800-933-SIKA
www.sika.ca

An ISO 9001 certified company
Pointe-Claire : ISO 14001 certified EMS





MATERIAL SAFETY DATA SHEET

Sika Epocem Module - Part A

HMIS

HEALTH	2
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	C

1. Product And Company Identification

Supplier

SIKA CORPORATION
201 Polito Ave
Lyndhurst, NJ 07071

Company Contact: Kristin Kelley
Telephone Number: (201) 933-8800
FAX Number: (201) 933-9379
Web Site: www.sikausa.com

Manufacturer

SIKA CORPORATION
201 Polito Ave
Lyndhurst, NJ 07071

Company Contact: Kristin Kelley
Telephone Number: (201) 933-8800
FAX Number: (201) 933-9379
Web Site: www.sikausa.com

Supplier Emergency Contacts & Phone Number

CHEMTREC: 800-424-9300
INTERNATIONAL: 703-527-3887

Manufacturer Emergency Contacts & Phone Number

CHEMTREC: 800-424-9300
INTERNATIONAL: 703-527-3887

Issue Date: 01/28/2002

Product Name: Sika Epocem Module - Part A
CAS Number: Not Established
Chemical Family: EPOXY COMPOUND
Chemical Formula: RMF-732
MSDS Number: 1890
Product Code: NO. 633-13

Synonyms

SIKADUR 45 EPOCEM - PART A
SIKAGARD 75 EPOCEM - PART A

2. Composition/Information On Ingredients

Ingredient Name	CAS Number	Percent Of Total Weight
MODIFIEDEPOXYRESINEMULSION	25068-38-6	

3. Hazards Identification

Eye Hazards

EYE IRRITANT.

Skin Hazards

MAY CAUSE SKIN IRRITATION. PROLONGED AND/OR REPEATED CONTACT WITH SKIN MAY CAUSE AN ALLERGIC REACTION/SENSITIZATION.

MATERIAL SAFETY DATA SHEET

Sika Epocem Module - Part A

3. Hazards Identification - Continued

Ingestion Hazards

MAY CAUSE EFFECTS TO THE GI TRACT, USUALLY RESULTING FROM INGESTION OF THE MATERIALS, SUCH AS IRRITATION, NAUSEA, GI DISORDERS, ULCERATION, DIARRHEA OR CONSTIPATION.

Inhalation Hazards

MAY CAUSE RESPIRATORY TRACT IRRITATION.

4. First Aid Measures

Eye

RINSE EYES THOROUGHLY WITH WATER FOR AT LEAST 15 MINUTES. CONSULT PHYSICIAN.

Skin

WASH SKIN THOROUGHLY WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. IF SYMPTOMS PERSIST CONSULT PHYSICIAN.

Ingestion

DILUTE WITH WATER. CONTACT PHYSICIAN.

Inhalation

REMOVE TO FRESH AIR. IF BREATHING HAS STOPPED, INSTITUTE ARTIFICIAL RESPIRATION. CONSULT WITH PHYSICIAN.

5. Fire Fighting Measures

Flash Point: >220 °F

Autoignition Point: N/A °F

Lower Explosive Limit: N/A

Upper Explosive Limit: N/A

Fire And Explosion Hazards

NONE KNOWN

Extinguishing Media

In case of fire, use water spray (fog) foam, dry chemical, or CO2.

Fire Fighting Instructions

Firefighters should wear self-contained breathing apparatus and full protective gear.

6. Accidental Release Measures

WEAR SUITABLE PROTECTIVE EQUIPMENT. CONTAIN SPILL AND COLLECT WITH ABSORBENT MATERIAL AND TRANSFER INTO SUITABLE CONTAINERS. AVOID CONTACT. KEEP SPILLS AWAY FROM SEWERS AND OPEN BODIES OF WATER.

7. Handling And Storage

Handling And Storage Precautions

STORE IN A COOL DRY AREA. KEEP FROM FREEZING. KEEP CONTAINERS TIGHTLY CLOSED.

Work/Hygienic Practices

Wash thoroughly with soap and water after handling.

8. Exposure Controls/Personal Protection

Engineering Controls

Use with adequate general and local exhaust ventilation.

MATERIAL SAFETY DATA SHEET

Sika Epocem Module - Part A

8. Exposure Controls/Personal Protection - Continued

Eye/Face Protection

Safety glasses with side shields or goggles.

Skin Protection

AVOID SKIN CONTACT. WEAR LONG SLEEVE SHIRT AND LONG PANTS. CHEMICAL RESISTANT GLOVES.

Respiratory Protection

General room ventilation is normally adequate.

Other/General Protection

WASH THOROUGHLY AFTER HANDLING.

Ingredient(s) - Exposure Limits

MODIFIED EPOXY RESIN EMULSION

OSHA PEL: NOT ESTABLISHED

ACGIH TLV: NOT ESTABLISHED

IARC: NO

NTP: NO

9. Physical And Chemical Properties

Appearance

MILKY, WHITE LIQUID

Odor

MILD

Chemical Type: Mixture

Physical State: Liquid

Melting Point: N/A °F

Boiling Point: N/A °F

Specific Gravity: 1.09

Percent Volatiles: 38%, wt.

Packing Density: 9.13

Vapor Pressure: N/A

Vapor Density: >AIR

Solubility: MISCIBLE

Evaporation Rate: SLOWER THAN ETHER

10. Stability And Reactivity

Stability: STABLE

Hazardous Polymerization: WILL NOT OCCUR

Conditions To Avoid (Stability)

NONE KNOWN

Incompatible Materials

NONE KNOWN

Hazardous Decomposition Products

OXIDES OF NITROGEN, CO, CO2

Conditions To Avoid (Polymerization)

NONE KNOWN

MATERIAL SAFETY DATA SHEET

Sika Epocem Module - Part A

11. Toxicological Information

Miscellaneous Toxicological Information

ACUTE ORAL TOXICITY (LD50): >7500 MG/KG

Conditions Aggravated By Exposure

EYE DISEASE, SKIN DISORDERS AND ALLERGIES, CHRONIC RESPIRATORY DISORDERS.

12. Ecological Information

No Data Available...

13. Disposal Considerations

Dispose in accordance with applicable federal, state and local government regulations.

14. Transport Information

Proper Shipping Name

NOT REGULATED BY D.O.T.

15. Regulatory Information

U.S. Regulatory Information

All ingredients of this product are listed or are excluded from listing under the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

SARA Hazard Classes

Acute Health Hazard
Chronic Health Hazard

SARA Section 313 Notification

This product does not contain any ingredients regulated under Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 or 40 CFR 372.

16. Other Information

HMIS Rating

Health: 2

Fire: 1

Reactivity: 0

PPE: C

Revision/Preparer Information

MSDS Preparer: Kristin Kelley

Disclaimer

The data in this Material Safety Data Sheet relates only to the specific material herein and does not relate to use in combination with any other material or in any process. The information set forth herein is based on technical data that Sika believes to be reliable as of the date hereof. Since conditions of use are outside our control, we make no warranties, express or implied and assume no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents.

SIKA CORPORATION