

PRODUCT DATA SHEET

Sika® Duochem EE

HIGH PERFORMANCE WATER BASED EPOXY BLOCKFILLER

PRODUCT DESCRIPTION

Sika® Duochem EE is a two part, high performance block-filler designed to prime and fill small pores and reduce surface irregularities on properly prepared walls and ceilings. Designed to fill voids on porous surfaces and improve both the adhesion and appearance of high quality Sikagard® finishes that will be exposed to high levels of moisture in service.

USES

Sika® Duochem EE may only be used by experienced professionals.

- Interior applications
- On wall and ceiling constructed of concrete block, masonry, poured or pre-cast concrete.
- To provide superior bonding properties needed to support two part epoxy and urethane finish coats in high abuse installation
- To fill and seal walls and ceilings with variable absorption which might excessively absorb coatings
- Wet and dry process areas subject to repeated cleaning such as; food and beverage processing plants, health care facilities, pharmaceutical, laboratories, animal care facilities, wash bays, locker and shower rooms
- Used in new construction, renovation and maintenance work

CHARACTERISTICS / ADVANTAGES

- Mix ratio, 1:1 by volume resin to hardener
- Low odor and low VOC
- Excellent bond and adhesion properties
- Superior moisture resistance
- Good chemical resistance
- Good bridging and filling properties
- Good hiding capabilities
- Provides a more uniform even surface to coat
- Fully compatible with Sikagard® finishes
- Clean-up with water

PRODUCT INFORMATION

Packaging	Component A: 5 US gal. (18.9 L) Component B: 5 US gal. (18.9 L)
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Appearance / Color	Off-White
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Shelf Life	12 months in original unopened container under proper storage conditions	
Storage Conditions	Store dry between 40 °F and 90 °F (4–32 °C). Protect from freezing. If frozen, discard.	
Solid content by weight	68 %	
Solid content by volume	50 %	
Volatile organic compound (VOC) content	≤ 65 g/L	(ASTM D-2369)

TECHNICAL INFORMATION

Chemical Resistance	Please consult Sikafloor Technical Services.
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APPLICATION INFORMATION

Coverage	50– 80 ft ² / US gal (1.2–2.0 m ² / L) at 33–20 mils wet film thickness (w.f.t.) / 16 - 10 mils dry film thickness d.f.t <i>Typically one coat is required, although on more porous surfaces a second coat may be required. Actual coverage rates and material consumption will depend upon porosity and profile of substrates. Test areas are recommended to establish correct coverage rates.</i>	
Pot Life	3 hours (250 g, 8.8 oz.)	
Cure Time	Touch dry	2 to 3 hours
	Recoat time	7 to 9 hours
	Overcoat time	24 to 48 hours
	Full cure	7 days
	<i>Drying times will vary according to air and substrate temperature and humidity</i>	

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

General Substrate Requirements:

Substrates must be sound, clean and dry. Remove sand, dust, dirt, oil, grease, wax, silicone, glue and all other contaminants that may affect the bond of Sika® Duochem EE. Existing coatings must be removed unless extensive testing confirms compatibility of materials and it is accepted that the existing paint or high performance coating will determine the overall performance of the newly applied coating.

Concrete Masonry: Mortar joints shall be allowed to age for a minimum of 28 days prior to application of blockfiller. Remove all traces of efflorescence, sealers, loose mortar, mortar spatters, residues, oxidation powder and any other foreign matter by scraping and wire brushing. Mechanically prepare smooth, slick concrete surfaces, by grinding or sand blasting (ICRI – CSP 1-2). Bug holes, cracks or irregularities should be filled and leveled with SikaTop® or Sika® MonoTop® mortars as appropriate. Consult Sika Technical Services for recommendations.

Concrete Vertical Surfaces:

New concrete shall be allowed to age for a minimum of

28 days prior to application of the 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 SikaTop®, SikaRepair® or Sika® MonoTop® mortars as appropriate. Consult Sika Technical Services for recommendations.

MIXING

Thoroughly pre-mix each component separately to ensure that all solids are distributed throughout and to ensure product uniformity. Empty Component B in the correct mix ratio to Component A into a suitable size mixing container for the volume of material being mixed. Mix the combined components for at least 3 minutes, using a low-speed drill (200–300 rpm) to minimize entrapping air. Use an Exomixer type mixing paddle (recommended model) suited to the volume of the mixing container. 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, Sika® Duochem EE should be uniform in color and consistency.

Allow the mixed material to stand (induction time) for 1 hour, then lightly remix to ensure uniformity before applying. Failure to do so will result in unsatisfactory performance. Mix only that quantity which can be used within its pot life.

APPLICATION

Tape off and mask all areas that require protection. It is recommended that suitable cleaning rags and clean warm water is on hand to remove accidental spills.

Sika® Duochem EE can be applied by brush, roller or spray equipment, dependent on limitations and site conditions.

If sprayed, the material must be back rolled/brushed to ensure good penetration of the blockfiller into the substrate.

Sika® Duochem EE must be applied in a workmanlike manner using skilled and trade qualified applicators. The film thicknesses stated must be produced and complete coverage achieved (This condition may require a second coat).

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. 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.

LIMITATIONS

- 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® mortar prior to application is 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 5.5 °F (3 °C) above the measured dew point.
- Maximum relative humidity during application and cure: 85 %.
- Minimum substrate and air temperature; 50 °F (10 °C) 24 hours before, during and after blockfiller application.
- Do not apply onto porous surfaces where moisture vapour transmission will occur during application.
- If material freezes (formation of crystals and/or separation of resin) it should not be used.

- Surfaces that are not to be coated, for example glass, ceramics and decorative materials must be protected from contact. In the event of splashes, remove immediately with clean water and rags or squeegee. Once hardened product can only be removed mechanically.
- 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 primer or adhere to the sealed surface, affecting the quality of subsequently applied finishes.
- When over-coating existing coatings, compatibility and adhesion testing is required.
- Not designed to function as an aesthetic treatment or final coating; must be overcoated with a Sikagard® finish.
- Do not hand mix Sikagard® materials; mechanical mix only.
- Protect from dampness, condensation and water contact during the initial 24 hour cure period.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LOCAL RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

LEGAL DISCLAIMER

KEEP CONTAINER TIGHTLY CLOSED •KEEP OUT OF REACH OF CHILDREN •NOT FOR INTERNAL CONSUMPTION •FOR INDUSTRIAL USE ONLY •FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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