

PRODUCT DATA SHEET

ECTR

Standard Epoxy Coating



DESCRIPTION

ECTR is a general service, two component, glossy, 100% solids, low VOC, low odour, water-clear epoxy resin tintable with a wide selection of CTM Colour Pod or solid colour and metallic Sikafloor® UTE Colour Pak. It is also available as a factory pre-tinted product with a selection of high volume stock colours. ECTR can be applied as a smooth non-textured finish, or custom aggregate textured finish using very fine to aggressive coarse aggregates that improve traction values on wet or contaminated surfaces.

USES

ECTR may only be used by experienced professionals.

- ECTR is typically used to protect new surfaces or re-stored existing deteriorated concrete floors.
- It can be applied clear or pigmented, typically installed as a concrete primer, high-build smooth coating or as a binder for broadcast or trowel applied surfacings.

PRODUCT INFORMATION

Packaging	Component A: 7.57 L (2 US gal) Component B: 3.78 L (1 US gal) Components A+B: 11.35 L (3 US gal) unit
Shelf life	12 months in original unopened packaging.
Storage conditions	Store dry between 5 °C and 32 °C (41 °F and 89 °F)
Appearance and colour	Water-clear / Colour refer to CTM Colour Pod, or Sikafloor UTE Colour Pak® Colour Chart, or ECTR Standard Stock Pre-tinted Colour Selector
Volatile organic compound (VOC) content	< 25 g/L (Clear)

FEATURES

- Excellent protection for new or restored concrete substrates.
- Durable, impermeable, and seamless.
- Low VOC / low odor suitable for application in occupied facilities.
- Very good mechanical and chemical resistance.
- Glossy aesthetic finish.
- Easily cleaned and maintained.

CERTIFICATES AND TEST REPORTS

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

TECHNICAL INFORMATION

Shore D Hardness	~85
Tensile adhesion strength	> 2.4 MPa (> 350 psi) (substrate failure)

APPLICATION INFORMATION

Mixing ratio	Clear Resin and Factory Pre-tint A:B = 2:1 by volume		
	Colour Pod Pigment Add 1 x 500 ml (16.9 oz) CTM Colour Pod or Sikafloor® UTE Colour Pak for every 3.78 L (1 US gal.) of ECTR Clear Part A (Resin)		
Consumption	Smooth Coating: Prime coat: (8 mil) 5 m ² /L (203 ft ² /US gal.) Finish coat: (15 mil) 2.6 m ² /L (106 ft ² /US gal.) Note: Actual coverage rates and material consumption will depend upon porosity and profile of substrates. Test sections are recommended to establish correct coverage.		
Material temperature	Condition product at temperatures between 18 °C to 30 °C (65 °F to 86 °F) before using.		
Ambient air temperature	Minimum: 10 °C (50 °F) Maximum: 30 °C (85 °F) Mixing and application attempted at material, ambient and/or substrate temperature conditions less than 18 °C (65 °F) will result in a decrease in product workability and slower cure rates.		
Relative air humidity	Maximum 85 % (during application and curing).		
Dew point	Substrate must be at least 3 °C (5 °F) above the Dew Point to reduce the risk of condensation, which may lead to adhesion failure or “blushing” on the floor finish. Be aware that the substrate temperature may be lower than the ambient temperature.		
Substrate temperature	Minimum: 10 °C (50 °F) Maximum: 30 °C (85 °F) Do not apply while ambient and substrate temperatures are rising, as pin-holes may occur. Ensure there is no vapour drive at the time of application.		
Substrate moisture content	Moisture content of concrete substrate must be ≤ 4 % by mass (pbw – part by weight) as measured with a Tramex®CME / CMExpert type concrete moisture meter on mechanically prepared surface.		
Pot Life	Material Temperature	Time	
	23 °C (73 °F)	~55 minutes	
Curing time	Substrate Temperature	Tack Free	Full Cure
	23 °C (73 °F)	~8 hours	~7 days
	Curing times will vary according to ambient air and substrate temperatures and relative humidity. Freshly applied material should be protected from dampness, condensation, and water for at least 48 hours. Mechanical, chemical, and physical properties will be fully achieved at full cure.		
Waiting time to overcoating	Substrate Temperature	Minimum	Maximum
	23 °C (73 °F)	~ 8 hours	~ 48 hours
	Note: If the Waiting/ Recoat time has passed the previous coat must be lightly sanded, to remove all gloss; vacuum cleaning and solvent wiping will be necessary to remove all traces of dust. The surface should be a uniform dullness, with no gloss present after clean-up and before applying the next coat.		

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 OF USE

- Any aggregate used with ECTR systems must be non-reactive and oven dried.
- Do not apply on porous surfaces where a transfer of moisture vapour may occur during application.
- This product is not designed for negative side water-proofing. Application of an epoxy coating on a concrete substrate in contact with the ground, without a functioning below slab moisture barrier, increases the risk of detachment.
- Typically, not recommended for exterior slabs on grade where freeze/thaw conditions may exist.
- Product will discolour over time when exposed to sunlight (UV) and under certain artificial lighting conditions.
- Do not apply to substrates exposed to extreme thermal shock.
- Direct-fired gas or kerosene heaters produce by-products that can have adverse effects on the curing product. To avoid this occurrence, heaters must be exhausted to the exterior of the building to avoid defects such as amine blush, whitening, loss of adhesion or other surface deficiencies.
- Beware of air flow and changes in air flow. Introduction of dust, debris, and particles, etc. may result in surface imperfections and other defects.

ECOLOGY, HEALTH AND 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

SUBSTRATE PREPARATION

The concrete surface must be clean and sound. Remove any dust, laitance, grease, oil, dirt, curing agents, impregnations, wax, foreign matter, coatings, and detritus from the surface by appropriate mechanical means such as shot blasting, grinding or other mechanical means to achieve an open surface profile equivalent to ICRI / CSP 3 – 4 similar in texture to fine sandpaper. 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 ECTR.

MIXING

Mix Ratio: A:B 2:1 by volume. Do not hand mix ECTR materials. Mechanically mix only.

Clear and Factory Pre-tint: Pre-mix each component separately. Empty Component B (Hardener) in the correct mix ratio to Component A (Resin). 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® or Jiffy 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, ECTR should be uniform in colour and consistency. Mix only that quantity which can be used within its pot life.

Colour Pod Pigmented: Premix each component separately, including the CTM Colour Pod or Sikafloor® UTE Colour Pak to ensure product uniformity. For all colours, add one (1) 500 ml (16.9 oz) CTM Colour Pod or Sikafloor® UTE Colour Pak for every 3.78 L (1 US gal.) of Component A (Resin) and mix at low speed (300 - 450 rpm) for three (3) minutes until a uniform colour is achieved using a drill fitted with an Exomixer® or Jiffy type paddle. Be careful not to introduce any air bubbles during the mixing process. Empty Component B (Hardener) in the correct mix ratio to Component A (Resin) and mix for additional three (3) minutes. Be careful not to introduce any air bubbles while mixing. Make sure the contents are completely mixed to avoid any weak or partially cured spots in the coating. 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, ECTR should be uniform in colour and consistency. Mix only that quantity which can be used within its pot life.

NOTE: When using brighter colours, additional coats may be required. Using more color additive than recommended will result in extended cure times and reduced chemical and abrasion resistance.

APPLICATION

Prime Coat: Apply mixed ECTR as a prime coat onto the substrate using a brush, roller, or squeegee, at a uniform coverage without puddling.

Wear Coat: Once the prime coat is tack-free, apply the wear coat using a brush, squeegee, and backroll to achieve even coverage.

Note: If the Waiting/ Recoat time has passed the previous coat must be lightly sanded, to remove all gloss; vacuum cleaning and solvent wiping will be necessary to remove all traces of dust. The surface should be a uniform dullness, with no gloss present after clean-up and before applying the next coat.

CLEANING OF EQUIPMENT

Clean all tools and equipment immediately with Sika® Epoxy Cleaner. Once cured, product can only be removed 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