



ECTCR-EXTREME

Chemical Resistant Epoxy Coating System

DESCRIPTION	ECTCR-EXTREME is a high-built solvent less two components epoxy novalac coating system designed for severe service coating. It exhibits very good finish and chemical properties. It exhibits very good solvent and chemical resistance. It is suitable for use in direct exposure in manufacturing facilities, warehouses, laboratories, dairies, breweries, chemical plants, paper mills, food processing and pharmaceutical manufacturing. This system has been approved by the Canadian Food Inspection Agency (C.F.I.A).	
ADVANTAGES	<ul style="list-style-type: none"> ■Dense surface, resistant to bacteria and moisture and easy to clean ■May apply several layers on itself ■Contains no solvent, allowing for interior application without harmful odors ■Excellent adhesive properties, allowing application on other firm and hard coating, as well as a good bond to the substrate ■Superior chemical and solvent resistance ■Exceptional abrasion resistance 	
TECHNICAL DATA	Packaging	11.35 L (3 US GAL KIT) OR 56.7 L (15 US GAL KIT)
	Color	Upon Request
	Recommended Thickness	Finish Coat
		ECTCR- Extreme 16 MILS (100 ft ² /gal)
	Shelf Life	12 months in original unopened factory sealed containers. Keep away from extreme cold, heat, or moisture. Keep out of direct sunlight and away from fire hazards.
	Mix Ratio, by volume	A:B = 2:1
	Pot Life (454 g)	30-40 minutes @ 25°C
	VOC (g/L)	320 g/L
THERMAL RESISTANCE	EXPOSURE	DRY HEAT
	PERMANENT	+50 °C (122 °F)
	SHORT-TERM MAX. 7 DAYS	+80 °C (176 °F)
	SHORT-TERM MAX. 12 HOURS	+100 °C (212 °F)
PROPERTIES @ 23°C (73°F) and 50% R.H.	Solids Content, by weight	100%
	Solids Content, by volume	100%
	Density (kg/L)	Part A: 1.29-1.31 Part B: 0.9-1.0
	Thinner Recommended	Xylene
	Drying Times	
	Tack Free	4-6 hours
	Foot Traffic	24 hours
	Full Cure	7 days @ 24°C / 50% RH
	Bond Strength (psi), ASTM C882 (100 concrete failure)	2640
	Water Absorption, ASTM D570	0.3 %
	Hardness (Shore D), ASTM D2240	80-85
	Falling Sand Abrasion Resistance (L sand/ 1 dry mil), ASTM D968	40
	Viscosity @ 25°C	
	A/B Mix	3500-4000 cps
	Tensile Strength, ASTM D638	5700 psi
	Compressive Strength (psi), ASTM D695	14200
	Elongation %, ASTM D638	3-4
Chemical Resistance	See chart below	

* Please note, that the indicated mileage is calculated for flat surfaces. A porous or imperfect surface will require more material in order to cover the same mileage. *

** Please note that the indicated viscosity is for clear product only. Any addition of colorant may affect the viscosity. **



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SURFACE PREPARATION	<p>Old Concrete Concrete surface must be cleaned. BLASTRAC, sand blasting, diamond grinder w/30 grit or coarse, or water blasting is highly recommended to remove surface contaminates. Any oils and fats must be removed prior to product application. Acid etching may be required (followed by a thorough rinsing) to open the pores of the concrete to accept a primer. Do not apply to wet substrates. Chloride, moisture, and pH levels should be checked prior to application. In almost every application a primer is recommended prior to use of ECTCR-Extreme.</p> <p>New Concrete The concrete should be allowed to cure for a minimum of 30 days. Compression resistance of concrete must be at least 25 MPa (3625 lbs./inch²) after 28 days and traction resistance must be at least 1,5 MPa (218 lbs./inch²). BLASTRAC, sand blasting, diamond grinder w/30 grit or coarser or acid etching (followed by a thorough rinsing) is required to remove the surface laitance that appeared during the curing process. A primer should be used to reduce out-gassing and promote adhesion.</p>
MIXING	Materials should be pre-conditioned to a minimum of 10°C prior to use. Thoroughly mix each component separately. Pour component B into component A using the proper mixing ratio of 2A:1B by volume. Mix both components for at least 1 minute using a drill at low revolution (300 to 450 rpm) to reduce trapping of air. While mixing, scrape bottom and walls of container at least once to ensure a homogeneous mix. Only prepare quantity that may be applied during pot life of mixture.
APPLICATION	Apply mixed product on the prepared surface tightly (thin film) using a rubber rake and pass a roller to obtain a uniform coating. Avoid creating puddles. Back roll to ensure good wetting, uniform thickness and to remove roller marks. Apply two 16 mil coats. Recoating must be done before 24 hrs at 21°C.
CLEANING	Clean all tools and materials with the cleaner/thinner for epoxies. Wash hands and skin carefully with warm soapy water. Once product has hardened, it may only be removed through mechanical means.
RESTRICTIONS	<ul style="list-style-type: none"> ■ Minimum/Maximum temperature of substrate: 10°C / 30 °C (50 °F / 86 °F). ■ Maximum relative humidity during application and curing: 85 %. ■ Substrate temperature must be 3 °C (5.5 °F) above dew point measured. ■ Humidity content of substrate must be < 4 % when coating is applied. ■ Do not apply on porous surfaces where a transfer of humidity may occur during application. ■ Avoid exterior use on substrates at ground level. ■ Protect from humidity, condensation and contact with water during the 24 hour initial curing period. ■ Surface may discolor in areas exposed to regular ultraviolet light.

TEST GROUP	CHEMICAL RESISTANCE					
	1 DAY IMMERSION	1 DAY SPILLAGE	3 DAYS IMMERSION	3 DAYS SPILLAGE	7 DAYS IMMERSION	42 DAYS IMMERSION
Petrol containing max. 5 vol.-% bio alcohol	A/D	A	A/D	A	A/D	A/D
Aircraft fuel	A	A	A	A	A/D	A/D
Heating fuel / unused engine and lubricating oils	A	A	A	A	A	A
All hydrocarbons containing max. 5 vol.-% benzene, except petrol	A	A	A	A	A	A
Crude oil	A	A	A	A	A	A
Alcohols (max. 48 vol.-% Methanol), glycol ethers	A/D	A	A/D	A	B/D	B/D
Alcohols ≥ C ₂	A/D	A	A/D	A	A/D	B/D
Aliphatic and aromatic halogen hydrocarbons ≥ C ₂	A/D	A	A/D	A	B/D	C



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Aromatic halogen hydrocarbons	A/D	A	A/D	A	A/D	C
All esters and ketones	A/D	A	A/D	A	A/D	B/D
Aromatic esters and ketones	A	A	A/D	A	A/D	A/D
Biodiesel	A/D	A	A/D	A	A/D	A/D
Watery solutions of aliphatic aldehydes (up to 40%)	A/D	A/D	A/D	A/D	A/D	A/D
Aliphatic aldehydes including their watery solutions	A/D	A	A/D	A	C	C
Watery solutions of organic acids (carbon acids) (up to 10%) including their salts (in watery solution)	A/D	A/D	C	A/D	C	C
Organic acids (Carbon acid) including their salts (in watery solution) except formic acid	B/D	A/D	C	A/D	C	C
Mineral acids (up to 20 %) and acidious hydrolysing salts (pH < 6)	A/D	A/D	A/D	A/D	A/D	A/D
Anorganic lyes and alkaline hydrolysing salts (pH > 8)	A	A	A	A	A/D	A/D
Watery solutions of anorganic, non-oxidizing salts (pH 6-8)	A	A	A/D	A/D	A/D	A/D
Amines and their salts (in watery solution)	A/D	A	A/D	A	A/D	B/D
Watery solutions of organic tensides	A	A	A	A	A	B/D
Watery solutions of organic tensides	A/D	A	A/D	A	A/D	B/D
Cyclic and acyclic ethers	B/D	A/D	C	A/D	C	C
Acyclic ethers	A/D	A	A/D	A	A/D	C
Lactic acid 30%	A/D	A/D	A/D	A/D	A/D	B/D
Lactic acid 80%	B/D	A/D	B/D	A/D	B/D	C
Hydrochloric acid HCl 37%	A/D	A/D	A/D	A/D	B/D	B/D
Nitric acid HNO ₃ 30%	A/D	C	C	C	C	C
Nitric acid HNO ₃ 40%	C	C	C	C	C	C
Sulphuric acid H ₂ SO ₄ 60%	A/D	A/D	A/D	A/D	A/D	A/D
Sulphuric acid H ₂ SO ₄ 80%	A/D	A/D	A/D	A/D	A/D	A/D
Sulphuric acid H ₂ SO ₄ 96%	A/D	A/D	A/D	A/D	C	C
Phosphoric acid H ₃ PO ₄ 85%	B/D	B/D	B/D	B/D	B/D	B/D
Na-hypochlorite 4.4%	A/D	A/D	A/D	A/D	B/D	B/D
Acetone	A/D	A	A/D	A	C	C
Ethanol 100%	A/D	A	A/D	A	A/D	A/D
Chromic acid 50%	A/D	A/D	C	A/D	C	C
Acetic acid 60%	C	A/D	C	A/D	C	C
Zinc chloride 50%	A/D	A	A/D	A	A	A
Caustic Soda 50%	A	A	A	A	A	A
Ammonium solution 25%	A/D	A	A/D	A	A/D	A/D
Hydrogen-peroxide 30%	A/D	C	A/D	C	C	C
N-methyl-pyrrolidon	A/D	A/D	A/D	A/D	B/D	B/D



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Methyl-methacrylate	A/D	A	A/D	A	A/D	C
Dimethyl-formamide	B/D	A/D	B/D	A/D	C	C
Sugar solution saturated	A	A	A	A	A/D	A/D

A = Resistant
B = Limited Resistant
C = Not Resistant
D = Discolouration a/o loss of gloss (irreversible)

HEALTH AND SAFETY

In case of skin contact, wash with water and soap. In case of eye contact, immediately rinse with water for at least 15 minutes. Consult with a doctor. For respiratory problems, transport victim to fresh air. Remove contaminated clothes and clean before reuse. For more information, consult the material safety data sheet.

Components A and B contain toxic ingredients. Prolonged contact of this product with the skin is susceptible to provoke an irritation. Avoid eye contact. Contact with may cause serious burns. Avoid eye contact. Avoid breathing vapors release from this product. This product is a strong sensitizer. Wear safety glasses and chemical resistant gloves. A breathing apparatus filtering organic vapors approved by the NIOSH/MSHA is recommended. Predict suitable ventilation.

Consult the material safety data sheet for further information.

IMPORTANT NOTICE

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