

DESCRIPTION

ECE-VRM is a 100% solid, two component epoxy coating, designed for controlling the moisture vapor emission rate on deteriorated or new floors. **ECE-VRM** meets ASTM F3010 product requirements for vapor permeance when applied at a thickness of 18 mils. The coating will control moisture vapor emission rates up to 25 lb. /24 hr. /1000 square feet. **ECE-VRM** provides excellent resistance to abrasion and chemical resistance. **ECE-VRM** meets all kinds of requirements such as durability, performance as well as aesthetics. This system has been approved by the Canadian Food Inspection Agency (CFIA). It meets LEED standards.

PRIMARY APPLICATIONS

- Aircraft hangers
- Assembly areas
- Classrooms
- Clean rooms
- Laboratories
- Areas of light manufacturing
- Mechanical rooms
- Walkways

ADVANTAGES

- Contains no solvent with a very low VOC content, allowing for interior applications without harmful odors
- Exceeds ASTM F3010 standard
- Impermeable and seamless
- Seamless coves can be shaped
- Dense surface resistant to bacteria and moisture and easy to clean
- Excellent adhesive properties, allowing for application on a wide variety of substrates
- May apply several layers on itself with excellent adhesion

ELITE COATINGS CANADA INC.

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ECE-VRM: Technical Data Sheet: April 25, 2024

TECHNICAL DATA

Packaging litres / gal us			Color		
11.34 l / 3	15.9 l / 4.2	56.7 l / 15	Part A	Part B	Mixture
Recommended Thickness			Upon Request	Clear – Amber	Same as Part A
ECE-VRM	18 mils / 90-100 ft² us gal		Shelf Life		
Mix Ratio by volume					
A : B = 2 : 1			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.		
*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.					
Pot life (150g)	VOC (g/litre)	Density (kg/litre)			
50-60 minutes 25°C	41.77	Part A	Part B	Mixture	
Solids by weight %	Recommended Thinner	Clear: 1.11-1.13	0.9-1.0	–	
100%	xylene	Colored: 1.11-1.15	0.9-1.0	–	
Substrate Temperature		10°C	20°C	30°C	
Waiting Time / Overcoatability (min / max)		16 / 48	8 / 24	6 / 24	
Curing Details	Foot traffic	30 hours	24 hours	16 hours	
	Light traffic	5 days	3 days	2 days	
	Full cure and chemical resistance	10 days	7 days	5 days	
*Note: Times and data mentioned are based on laboratory conditions. Field results may vary and will be affected by changing ambient conditions, especially changes in temperature and relative humidity.					

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PROPERTIES @ 23°C (73°F) 50% R.H.

Bond Resistance (psi) ASTM D4541		Permeability (%) ASTM D570		
268 (substrate ruptures)		0.3		
Hardness (Shore D) ASTM D2240		Tensile Strength (psi) ASTM D638		
85-90		5500		
Compressive Strength ASTM D695		Elongation (%) ASTM D638		
6800		6.7		
Abrasion Resistance, ASTM D4060 (CS17/1000 cycles/ 1000 g)		Viscosity @ 25 °C (cps)	Part A	Part B
0.10 gram		clear	1200-1400	200-400
		colors	1400-1600	200-400
Mixture				
		700-900		
		1000-1200		
Vapor Permeance @ 18mils thickness ASTM E96		0.1 US perm		
MVER/RH @ 18 mil thickness ASTM F1869		25 lb. /24 hr. /1000 square feet		

SURFACE PREPARATION

The surface to be coated must be well primed. Remove dust, laitance, grease, oils, dirt, impregnating agents, waxes, foreign matter, any previous coatings, and disintegrated substances by mechanical means such as shot-blasting (BLASTRAC) or any other approved method to obtain an ICRI-CSP 3-4 profile. The compressive strength of the concrete must be at least 25 MPa (3625 lbs/in²) after 28 days and the tensile strength at least 1.5 MPa (218 lbs/in²).

MIXING

The products must be conditioned at a temperature between 18 °C (65 °F) and 30 °C (86 °F).

Pre-mixed color or clear (A)

Mix the resin part (A) perfectly before pouring the hardener (part B) according to the indicated mixing ratio. Depending on product amount and size of mixing equipment, mix for 1 to 3 minutes at low speed (300 to 450 rpm). During mixing, scrape the walls and bottom of the container at least once with a trowel to obtain a homogeneous mixture. As the pot life is limited, prepare amount of desired product as required in order to avoid any loss.

Part (A) when adding color pod

Incorporate a full colored container into the clear part (A), and then thoroughly mix until the color is uniform (one colored container pod per part A gallon) before pouring in the hardener (part B) according to the indicated mixing ratio. Depending on product amount and size of mixing equipment, mix for 1 to 3 minutes at low speed (300 to 450 rpm). During mixing, scrape the walls and bottom of the container at least once with a trowel to obtain a homogeneous mixture. As the pot life is limited, prepare amount of desired product as required in order to avoid any loss.

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APPLICATION

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Apply the coating using a rubber squeegee and pass a roller to obtain a uniform coating.

CLEANING

Clean all application equipment with your preferred cleaner. Once the product has hardened, it can only be removed by mechanical means. In case of skin contact, wash thoroughly with warm soapy water.

RESTRICTIONS

- Do not apply at temperatures below 10°C / 50°F or above 30°C / 86°F
- The relative humidity of the surrounding work environment during the application of the coating and throughout the curing process should not exceed 85%
- Substrate temperature must be 3°C (5.5°F) above dew point measured
- Humidity content of substrate must be <6% when coating is applied
- Do not apply on porous surfaces where a transfer of humidity may occur during the application
- The application of this coating on an interior or exterior substrate without a moisture barrier is at risk of detachment (by hydrostatic pressure).
- Protect the coating from all sources of moisture for a period of 48 hours
- Surface may discolor in areas exposed to regular ultraviolet light
- **ECE-VRM is not a replacement for waterproofing membranes**

HEALTH & 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. 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 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.

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IMPORTANT NOTICE

The information and recommendations contained in this document are based on reliable test results according to Elite Coatings Canada Inc. The data mentioned are specific to the material indicated. If used in combination with other materials, the results may be different. It is the responsibility of the user to validate the information therein and to test the product before using it. Elite Coatings Canada Inc. assumes no legal responsibility for the results obtained in such cases. Elite Coatings Canada Inc. assumes no legal responsibility for any direct, indirect, consequential, economic or any other damages except to replace the product or to reimbursement the purchase price, as set out in the purchase contract.

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