

E4E-87-POLYFAST



Description

E4E-87-POLYFAST is a two-component, 80 % solids, VOC compliant, low odour, aliphatic polyaspartic polyurea that was developed for UV stable floor topcoats. It provides outstanding appearance, superior chemical, UV, and solvent resistance. It exhibits excellent physical properties. This system has been approved by the Canadian Food Inspection Agency (CFIA). **E4E-87-POLYFAST** also meets FDA and USDA requirements.

Primary applications

- ✓ Marine protection for fiberglass, steel, concrete or wood
- ✓ UV-stable top coat
- ✓ Aircraft hangar floors
- ✓ Low temperature equipment
- ✓ Maintenance facilities
- ✓ Offshore platforms
- ✓ Industrial shop floors
- ✓ Car washes or wash bays
- ✓ Secondary Containment
- ✓ Cooling towers
- ✓ Bridges
- ✓ Wastewater treatment applications

Advantages

- ✓ Low Long pot life (45 min to 60 min)
- ✓ Low Odor
- ✓ Displays fast cure times with excellent adhesion
- ✓ Superior chemical resistance
- ✓ Superior abrasion resistance
- ✓ Non yellowing and good gloss retention
- ✓ Easy to mix 1:1 ratio by volume
- ✓ Excellent adhesive properties, allowing application on other firm and hard coating, as well as a good bond to the substrate
- ✓ VOC compliant in Canada and the United States

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TECHNICAL DATA					
Packaging litres / gal us			Color		
7.57 / 2		37.8 / 10	Part A	Part B	Mixture
Recommended Thickness			Light Yellow	Clear	Light Yellow
Primer: E4E-100		12 mils / 135 ft ² us gal	Shelf Life		
Topcoat on solid color: E4E-87-POLYFAST		8 mils / 200 ft ² us gal			
Topcoat on vinyl flakes: E4E-87-POLYFAST		8 - 12mils / 135-200 ft ² us gal			
Mix Ratio by volume			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.		
A : B = 1 : 1					
<i>*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.</i>					
Pot life (150g)		Solids by weight %		Density (kg/litre)	
45 - 60 minutes 25°C		80		Part A	Part B
VOC (g/litre)		Recommended Thinner		1.05 - 1.07	1.08 - 1.10
< 165 g/L		xylene		Solids by weight %	
Viscosity @ 25°C (cps)	Part A	Part B	Mixture	Part A	Part B
	300 - 500	50 - 100	150 - 250	88	70
Waiting time between coats					
Min / 4-6 hours – max / 24 hours					
Foot Traffic		12 – 24 hours			
Light Traffic		48 hours			
Chemical Resistance		72 hours			
<i>*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.</i>					

PROPERTIES @ 23°C (73°F) 50% R.H.	
Adhesion (concrete-primer) ASTM D4541	Water Absorption (%) ASTM D570
550 psi (substrate ruptures)	0.2
Hardness (Shore D) ASTM D2240	Tensile Strength (psi) ASTM D638
75 - 78	6500 - 7500
Compressive Strength ASTM D695	Elongation at break (%) ASTM D638
9500 psi	100
Abrasion Resistance, ASTM D4060 (CS17/1000 cycles/ 1000 g)	Flexibility, 1/8' Mandrel, ASTM D1737
30 mg loss	Pass
Water Vapor Transmission, ASTM E96 Water procedure B Film 0.01 cm (0.004")	Tear Strength (PLI), ASTM D2240
1 perm	350

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SURFACE PREPARATION

The surface to be coated must be well primed. Remove dust, laitance, grease, oils, dirt, impregnating agents, 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).

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.

APPLICATION

APPLICATION: Primer coat of E4E-100

Apply the coating using a rubber squeegee and pass a roller to obtain a uniform coating. Apply evenly and avoid creating excess pools of material.

APPLICATION: Finish coat of E4E-87-POLYFAST

Apply the finish coat using a rubber squeegee and pass a roller to obtain a uniform coating. Apply evenly and avoid creating excess pools of material.

CLEANING

Clean all application equipment with the recommended 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

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CHEMICAL RESISTANCE	
CHEMICAL	RESULTS (25°C)
Acetic Acid 100%	C
Acetone	C
Ammonium Hydroxide 50%	RC
Benzene	C
Brine Saturated H ₂ O	R
Chlorinated H ₂ O	R
Clorox (10%) H ₂ O	R
Diesel Fuel	RC
Gasoline	RC
Gasoline/5% MTBE	RC
Gasoline/5% Methanol	RC
Hydrochloric Acid 20%	R
Hydrochloric Acid 10%	NR
Hydraulic Fluid (oil)	RC
Isopropyl Alcohol	R
Lactic Acid	RC
MEK	RC
Methanol	R
Methylene Chloride	C
Mineral Spirits	RC
Motor Oil	R
MTBE	C
Muriatic Acid 10%	R
NaCl/H ₂ O 10%	R
Nitric Acid 20%	NR
Phosphoric Acid 10%	R
Phosphoric Acid 50%	NR
Potassium Hydroxide 10%	R
Potassium Hydroxide 20%	R, Dis
Propylene Carbonate	RC
Skydrol	C
Sodium Hydroxide 25%	R
Sodium Hydroxide 50%	R, Dis
Sodium Hypochlorite 10%	R
Sodium Bicarbonate	R
Stearic Acid	R
Sugar/H ₂ O	R
Sulfuric Acid 10%	R
Sulfuric Acid >50%	RC
Toluene	R
1,1,1-Trichloroethane	C
Trisodium Phosphate	R
Vinegar/H ₂ O 5%	R
H ₂ O	R
H ₂ O 14 days at 82°C	R
Xylene	RC

R = recommended/ little or no visible damage
RC = recommended conditional/ some effect, swelling or discoloration
C = Conditional/ Cracking-wash within one hour of spillage to avoid affects
NR = Not recommended
Dis = discolorative

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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 <4% 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

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. 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.

IMPORTANT NOTICE

The information and recommendations contained in this document are based on reliable test results according to PA Epoxy. 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. PA Epoxy assumes no legal responsibility for the results obtained in such cases. PA Epoxy 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.