XPS-POLYMC-KIT

Aliphatic Polyaspartic

DESCRIPTION

XPS-POLYMC-KIT is a two-component, 100% solids, V.O.C. compliant, aliphatic polyaspartic developed for UV stable floor topcoats. It provides outstanding appearance, superior chemical, UV, and solvent resistance. It exhibits excellent physical properties. This system complies with the Canadian Food Inspection Agency (C.F.I.A.).

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

- Superior chemical resistance
- Superior weather and abrasion resistance
- Non yellowing and good gloss retention
- Easy to mix 1:1 ratio by volume
- Emits virtually no odors and can be applied indoors
- Excellent adhesive properties, allowing application on other firm and hard coating, as well as a good bond to the substrate
- **V.O.C. compliant in all 50 states and Canada**

TECHNICAL DATA

Packaging	7.57 L (2 US gal.) and 37.8 L (10 US gal.)		
Color	Upon Request		
Yield/Recommended Thickness Primer	XPS-POLYMC-KIT	5-10 mils D.F.T. (350-150 ft²/gal)	
Finish Coat	XPS-POLYMC-KIT	6-10 mils D.F.T. (350-150 ft²/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 = 1:1 (100:100)		
Mix Ratio, by weight (grams)	A: B = 100:107		
Pot Life (454 g)	40-50 minutes @ 25°C		

PROPERTIES @ 23°C (73°F) and 50% R.H.

Solids Content, by weight	**Part A**	**Part B**	**Mix**
Clear	100%	100	100%
Solids Content, by volume	**Part A**	**Part B**	**Mix**
Clear	100%	100%	98.5%
Specific gravity	**Part A**	**Part B**	**Mix**
	1.12 - 1.13	1.13 - 1.14	1.05 - 1.10
Thinner Recommended	XYLENE		
Working Time (25°C / 40% R.H.)	15 - 25 minutes		
Abrasion Resistance, ASTM D4060, Taber Abrader CS-17 Wheel / 1000g (2.2 lbs.) / 1000 cycles	30 mg loss		

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Adhesion, ASTM D4541 Concrete-primer		>500 psi (substrate ruptures)		
Water Absorption, ASTM D570		0.2%		
Water Vapor Transmission, ASTM E96 Water Procedure B Film 0.01cm (0.004")		1 perm		
Hardness (Shore D), ASTM D2240		75-78		
Flexibility, 1/8" Mandrel, ASTM D1737		Pass		
Falling Sand Abrasion Resistance (L sand/ 1 dry mil), ASTM D968		45		
Viscosity @ 25°C cps		**Part A**	**Part B**	**A/B Mix**
		400-500 cps	150-180 cps	300-400 cps
Recoat		**Substrate Temp**	**Minimum**	**Maximum**
		± 10 ˚C	20 hours	36 hours
		± 20 ˚C	5 hours	8 hours
		± 30 ˚C	3 hours	6 hours
Curing Details	**Substrate Temp**	**Foot Traffic**	**Light Traffic**	**Full Cure**
	±10 ˚C	2 days	5 days	8 days
	± 20 ˚C	2 days	3 days	5 days
	± 30 ˚C	18 hours	2 days	3 days
Gloss, ASTM D523		95+		
Fire Rating CAN/ULC S102		Estimated on similar coating		
Flame spread		5		
Smoke developed		94		
Tensile Strength, ASTM D638		7000-8000 psi		
Compressive Strength (psi MPa), ASTM D695		9000 - 10000		
***W/Quartz**		13700		
***W/Chips**		12200		
Elongation at Break, ASTM D638		100 - 110%		
Tear Strength (PLI), ASTM D2240		350		
VOC		0 g/L		

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 surface area.

****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	**Old Concrete** Concrete surface must be cleaned and mechanically prepared using shotblasting, sand blasting, and/or diamond grinding. All oils, sealers, curing agents, waxes and fats must be removed prior to product application. Do not apply onto wet substrates. Chloride, moisture, and pH levels should be checked prior to application. Strongly recommended to use primer (SCI-100) prior to application of XPS-POLYMC-KIT All cracks and substrate imperfections should be filled and repaired prior to application. **New Concrete** New concrete should be allowed to cure for a minimum of 30 days. Compression resistance of concrete must be at least 25 MPa (3625 lbs./inch^2) after 28 days and traction resistance must be at least 1,5 MPa (218 lbs./inch^2). Shotblasting, sand blasting, and/or diamond grinding is required to remove the surface laitance that appears during the concrete finishing and curing process. SCI-100 primer is recommended to be used to seal porous concrete surfaces prior to application. All cracks and substrate imperfections should be filled and repaired prior to application.
MIXING	Materials should be pre-conditioned to a minimum of 15°C (50°F) prior to use. Thoroughly mix each component separately using paddle mixers and a drill for a minimum of 2 minutes to place the solids content evenly in suspension. Pour component B into component A using the proper mixing ratio of 1A:1B by volume. Mix both components for at least 3 minutes 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.
CLEANING	Clean all application equipment with a specified cleaner. Once the material hardens it can only be removed mechanically. If the product splatters, wash thoroughly with hot soapy water.
OVERLAPS	Subsequent overlaps must be applied when primer is still wet or tacky. If primer has dried, reprime. Porous substrates may require multiple priming.
SUGGESTIONS	Sprinkle the primed area lightly with aggregate to provide better footing.
RESTRICTIONS	■ Minimum/Maximum temperature of substrate: 15°C / 30°C (59°F / 86°F). ■ Maximum relative humidity during application and curing: 85%. ■ 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. ■ Protect from humidity, condensation and contact with water during the 24-hour initial curing period.
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 a physician. For respiratory irritation, move affected person 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 product 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. Work in well ventilated area. ***Consult the material safety data sheet for further information.***
IMPORTANT NOTICE	All statements, recommendations and technical information contained in this document are accurate to the best knowledge of SCI COATINGS INC. The data relates only to the specific material designated herein. It may not be valid if used in combination with any other materials. It is the users' responsibility to verify suitability of this information for their own particular use, and to test this product before use. SCI COATINGS INC. assumes no legal responsibility for use upon these data. SCI COATINGS INC. assumes no legal responsibility for any direct, indirect, consequential, economic, or any other damage except to replace the product or refund the purchase price as set out in the purchase agreement.

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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_20	R
Chlorinated H_20	R
Clorox (10%) H_20	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/H20 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_20	R
Sulfuric Acid 10%	R
Sulfuric Acid >50%	RC
Toluene	R
1,1,1-Trichloroethane	C
Trisodium Phosphate	R
Vinegar/H_20 5%	R
H_20	R
H_20 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= Discoloration