



POLYCOAT PRODUCTS

A Division of American Polymers Corp.

POLYEURO® 5502F

Two Component Aromatic
Polyurea Protective Coating

DESCRIPTION

Polyeuro® 5502F is a fast set, rapid curing, 100% solids, flexible, aromatic, two component spray polyurea that can be applied to suitably prepared concrete and metal surfaces. Its extremely fast gel time makes it suitable for applications down to -20°F (-29°C). It may be applied in single or multiple applications without appreciable sagging and is relatively insensitive to moisture and temperature allowing application in most temperatures.

FEATURES

- ❖ Zero VOC (100% Solids)
- ❖ Excellent Thermal Stability
- ❖ No Toxic Vapors
- ❖ Meets USDA Criteria
- ❖ Low Temperature Flexibility
- ❖ Good Chemical Resistance
- ❖ Coats Carbon or Mild Steel Metals without Primer
- ❖ Installed With or Without Reinforcement in Transitional Areas
- ❖ Seamless
- ❖ Odorless
- ❖ Non-Reactive

TYPICAL USES

- ❖ Airports
- ❖ Refineries
- ❖ Fertilizer Plants
- ❖ Mining Operations
- ❖ Food Processing Plants
- ❖ Marine Environments
- ❖ Secondary Containment
- ❖ Walkways and Balconies
- ❖ Water and Waste Water Treatment
- ❖ Industrial and Manufacturing Facilities
- ❖ Power Plants
- ❖ Structural Steel
- ❖ Warehouse Floors
- ❖ Cold Storage Facilities
- ❖ Landfill Containment
- ❖ Paper and Pulp Mills
- ❖ Parking Garage Decks

COLORS

Neutral. Custom colors are available upon request.

Due to its aromatic composition, Polyeuro® 5502F will tend to yellow or darken in color and will become flat after exposure to UV light. Polyeuro® 5502F may be topcoated with an aliphatic polyurethane/polyurea coating for a colorfast finish.

PACKAGING

100 gallon (378 liter) kit: One 50 gal (189 L) drum of Part-A and one 50 gal (189 L) drum of Part-B.

COVERAGE

Polyeuro® 5502F may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil thickness is one gallon per 1600 sq. ft. (1 liter per square metre at 1mm thickness).

TECHNICAL DATA

Mix Ratio by Volume	1A : 1B
Pot Life at 66.5-71°C.....	2-4 seconds
Tack Free Time	15-20 seconds
(thickness and substrate temperature dependent)	
Recoat Time at 20°C.	0-6 hours
Viscosity at 66.5-71°C, Brookfield:	
Part-A	50 ± 20 cps
Part-B	50 ± 20 cps
Density (Side A & B Combined)	1.05 kgs/litre
Flash Point	>93°C
Hardness (ASTM D-2240)	50 ± 5 D
Tensile (ASTM D-412*)	3000 ± 200 psi
Elongation (ASTM D-412*)	425% ± 20%
Tear (ASTM D-412*)	450 ± 50 pli
Service Temperature	-40°C to 120°C
Water Vapor Permeability (ASTM E-96)	0.00042 gm/hr/in ²
Water Absorption,max 23°C,24hr (ASTM D471) ..	< 0.5%
VOC Content	0 %
Recommended Applied Thickness	>2 mm
Taber Abrasion Resistance, ASTM D-4060	
(CS17 wheel,1000 cycles,1 kg load)	<6 mg loss
Crack Bridging (ASTM C836)	
(-25°C, 1.6mm crack, 25 cycles)	Pass
Impact Resistance @ 25°C (ASTM G14)	> 200 in/lb
Pull-Off Strength (minimum) (ASTM D-4541)	
Inter-Coat Adhesion	Excellent (forms monolithic film)
Concrete(Dry),substrate failure occurred	>500 psi
Concrete(Primed),substrate failure occurred ..	>500 psi
Steel (75-100 micron blast profile)	>900 psi
Lineal Shrinkage	Negligible (<2%)
Flexibility (ASTM D1737)	Pass
8" (3mm) Mandrel Bend Test	
Return to Service:	
Foot Traffic	1 - 4 hours
Full Service	10 - 24 hours
(Dependent on substrate and ambient temperatures)	
Resistance to Weathering (ASTM G-23)	
(Type DH Weatherometer-3000 hrs exposure)	No cracking, blistering or flaking. Colour change and gloss reduction is noted.
Potable Water Certification - Australian Water Quality Centre, AS/NZS 4020 (Certificate number 4007/92.1060)	
Pass	
(*These physical properties from sample sprayed with Graco Foam Cat 200 @ 2000 psi minimum, with Gusmer GX7-400 mechanical purge gun @ 66.5-71°C. Different machine and parameter will change these properties. User should perform their own independent testing as properties are approximate.)	

CHEMICAL RESISTANCE CHART FOR POLYEURO® 5502F

The following chemical resistance data were obtained from a 70-75 mils film of POLYEURO® 5502F immersed in each chemical listed below at 70-75 deg F for a period of 7 days. Like other industrial maintenance coatings POLYEURO® 5502F has chemical and temperature limitations. Please read the disclaimer below. For chemicals other than those listed below, proper testing must be completed prior to application of the coating system. It is advisable to consult your local Polycoat representative.

CHEMICAL SOLVENTS			
Xylene	4	Motor Oil	2
Toluene	4	Gasoline (unleaded)	1
Acetone	2	Diesel	1
2 - Methyl Butane	1	Brake Fluid	2
MTBE	2	Hydraulic Oil	1
Hexane	2	Methanol	4
ACIDS & BASES			
Sewage	1	Sulphuric Acid 60%	4
Hydrogen Sulphide gas (H ₂ S gas)	1	Sulphuric Acid 30%	5
Hydrochloric Acid 35%	5	Sulphuric Acid 10%	1
Hydrochloric Acid 10%	1	Sulphuric Acid 5%	1
Hydrochloric Acid 5%	1	Potassium Hydroxide 10%	1
Propylene Carbonate	3	Potassium Hydroxide 20%	2
Acetic Acid	1	Sodium Hydroxide 10%	1
Phosphoric Acid	1	Sodium Hydroxide 20%	2
Ammonium Hydroxide 10%	1	Sodium Hydroxide 50%	2
Ammonium Hydroxide 20%	1		
10% Sugar/Water Solution	1		
Salt Water	1		
Drinking Water	1		
De-ionized Water	1		
CHART KEY			
1: no visible damage			
2: little visible damage			
3: some effect swelling, discolouration, cracking			
4: not recommended			
5: satisfactory for splash spillage and secondary containment (72 – 96 hours)			

DISCLAIMER: All recommendations, statements and technical data contained herein are based on tests we believe to be reliable and correct but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. This information relates to the specific material designated and may not be valued for such material used in combination with any other material or in any process. It is the users responsibility to satisfy himself by his own information and test to determine suitability of the product for his own intended use and user assumes all risk and liability resulting from his use of the product. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate office of the manufacturer.

Test performance results were obtained in a controlled environment and POLYCOAT PRODUCTS makes no claim that these test or other tests, accurately represent all environments. Application, environmental and design factors can vary significantly, due care should be exercised in the selection and use of the coating.

PUBLISHED TECHNICAL DATA AND INSTRUCTIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. CONTACT YOUR LOCAL POLYCOAT PRODUCTS REPRESENTATIVE FOR CURRENT TECHNICAL DATA AND INSTRUCTIONS.

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