QUANTUM Chemical
High Performance Coatings

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PRECIDUIM™ 150D-FR

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DESCRIPTION

PRECIDIUM™ 150D-FR is a 100% solids high performance two-component polyurethane/polyurea fire resistant hybrid elastomer that can be used for heavy-duty industrial applications.

PRECIDIUM™ 150D-FR is a fast-set system intended for use with plural component spray equipment with a mix ratio of 1 to 1.

FEATURES

- Excellent abrasion resistance
- Highly resistant to impact over wide temperature range
- Resistant to cracking under high flex conditions
- Remains flexible at low temperatures
- Resistant to water and a wide range of chemicals
- Can be tinted to a wide range of colors
- Meets CAN/ULC-S668-12 (Standards used for Secondary Containment of Aboveground Flammable and Combustible Liquid Tanks)

PROPERTIES OF CURED PRODUCT

PRECIDIUM™ 150D-FR is manufactured with an exclusive polyurethane system for high dielectric strength, fire resistance and durability. Typical product specifications are as follows*:

Density:	1.10 g/ml
Color:	Black/Grey (custom colors available)
Tensile Strength:	ASTM D-412 2306 psi (15.6 Mpa)
Elongation at Break:	ASTM D-412 170%
Tear Strength:	ASTM D-1004 319 pli (56 Nmm)
Taber Abrasion:	ASTM D-1044 <2 mg loss, (1000 cycles CS-17 wheel, 1 kg load)
Hardness:	44 Shore D, 97 Shore A

After 1000-hour Accelerated Weathering

Tensile Strength:	ASTM D-412 1566 psi (10.8 Mpa)
Elongation at Break:	ASTM D-412 110%

Temperature Stability

Maximum Service Temperature for Short-Duration

Temperature Elevation:	200 ºC (390 ºF) (a few minutes)
Melting Point:	250 ºC (480 ºF)

High Temperature Chemical Exposure:
Excellent resistance to high temp hydrocarbons (Bitumen, Heavy Oil, Diluted Bitumen, Diluent) up to 150C for secondary containment.

UV Rating
Test samples were placed in an ultraviolet light aging chamber per the requirements of ASTM D-4329. In typical conditions, a rating of 25-year longevity was determined.

FR Testing
Classified V-0 as per the criteria laid out in IEC 60695- 11-10 Test Method B.

*Approximate values only. Should not be considered specifications. This data is intended for general information only. Quantum Chemical cannot assume any liability related to the data provided, or to decisions made based on the data provided.

INSTRUCTIONS

For application use a regulated high-pressure proportioner (1:1) and spray gun system capable of producing a minimum of 2000-2500 psi (ie: Graco EXP2/HXP2/HXP3). Thoroughly mix RESIN for 45 to 60 minutes prior to use. To ensure adequate mixing is achieved, a Dynamix Series MMX Drum Mixer or similar is recommended. This will re-suspend and maintain product uniformity

Mixer Specifications:
- Drive: Air Motor 3 hp (½ hp @ 300rpm)
- Mount: 2" Bung Mount (Aluminum)
- Shaft: Shaft Assy. 3/4" x 28" Long Shaft (304 SS)
- Two Impellers: Impeller Assembly Fixed 8" Diameter

Preheating RESIN may be necessary to achieve uniform mix. Check that no residue is left on bottom of drum after mixing to ensure performance of cured product. This is achieved using a band heater or recirculating the material through the machine with the heaters seat to 140° F. Target RESIN temperature before spraying is 100° F or above.

Recommended Heat Settings:
Line/Pre-Heaters: 150° - 160° F
Hose Heat: 150° - 160° F

Recommended Pressure Settings: 2000-2500 psi

Recommended Gun: Fusion AP

Recommended Tip: AR4242/AW3939

Apply only to properly prepared substrate. Apply first coat at less than 10 mil and allow to become tack free before continuing. Apply following coats at 20 mil per coat and allow surface to become tack free before application of subsequent coats. Spray with uniform motion and allow 50 to 75% overlap.

STORAGE

Store in a cool and dry place for product integrity. Store in tightly sealed containers to protect from moisture and foreign materials.

AVAILABILITY

PRECIDIUM™ 150D-FR is packaged in 52.9 US Gallon drums.

SAFETY AND HANDLING

An SDS is available from Quantum Chemical.