



engineered containment



Quantum Chemical

## PRECIDIUM™ ECS FR

### DESCRIPTION

**PRECIDIUM™ ECS 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™ ECS 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

### INSTRUCTIONS

For application use a regulated high-pressure proportioner (1:1) and spray gun system capable of producing 1500-2500 psi. Thoroughly mix RESIN for 45 to 60 minutes prior to use. Preheating RESIN and ISO to approximately 80°F will improve performance.

#### Recommended Heat Settings:

Line/Pre-Heaters	150°-160° F
Hose Heat	150°-160° F

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.

### PROPERTIES OF CURED PRODUCT

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

<b>Density</b>	1.10 g/ml
<b>Color:</b>	Black/Grey (custom colors available)
<b>Tensile Strength:</b>	ASTM D-412 2306 psi (15.9 Mpa)
<b>Elongation at Break:</b>	ASTM D-412 170%
<b>Tear Strength:</b>	ASTM D-1004 319 pli (56 Nmm)
<b>Taber Abrasion:</b>	ASTM D-1044 <2 mg loss, (1000 cycles CS-17 wheel, 1 kg load)
<b>Hardness:</b>	44 Shore D, 97 Shore A
<b>Dielectric Strength:</b>	ASTM D-149 609 V/mil (product is a minimum of 100 mils thick, with ideal thickness of 125 mils)

#### After 1000-hour Accelerated Weathering

<b>Tensile Strength:</b>	ASTM D-412 1566 psi (10.8 Mpa)
<b>Elongation at Break:</b>	ASTM D-412 110%
<b>Dielectric Strength:</b>	ASTM D-149 unchanged

#### Temperature Stability

**Maximum Recommended Service Temperature for continuous Use:** 150°C (300° F)

**Maximum Service Temperature for Short-Duration Temperature Elevation:** 200°C (390° F) (a few minutes)

**Melting Point:** 250°C (480° F)

#### **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 years 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 Technical Services Ltd. cannot assume any liability related to the data provided, or to decisions made based on the data provided.



engineered containment



Quantum Chemical

## **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™ ECS FR** is packaged in 52.9 US Gallon drums.

## **PRODUCT SAFETY**

---

An MSDS is available upon request from Quantum Technical Services Ltd.

## **OTHER**

---

Recommendations for the use of our products are based on the specifications of this technical data and the test results published herein. Manufacturer and seller are not responsible for results where the product is used under any conditions outside those specified or beyond our control. The purchaser of this product must rely on his own judgment in determining suitability for his purpose, and in applying directions as to handling and use specified herein. Quantum Technical Services Ltd. (Quantum) makes no warranty, expressed or implied, except that if this product proves on inspection to be defective, Quantum will replace such quantity of the product proven to be defective or refund the purchase price of defective product. Labour costs and other consequential damages are hereby excluded. No representative or purported agent of Quantum has the authority to change this warranty. The information contained herein is subject to change without notice. If in doubt, contact your Quantum Representative for current Technical Data Sheets (TDS).