

## 950 Aromatic Polyurea

Updated: January 2015

### Specification Data

**Generic Type:** aromatic polyurea

**Description:** APCO 950 is a 100% solids, fast setting pure polyurea elastomer coating. 950 forms an extremely tough, abrasion and chemical resistant monolithic barrier on properly prepared steel, concrete or geo-textile. APCO 950 is pure polyurea, fast setting and can be applied in temperatures as low as 0°F. Film thicknesses of over 250 mils are quickly and easily achieved.

**Features:**

- 100% pure polyurea chemistry
- Zero VOC
- Ultra fast setting, immediate return to service

**Solids Content:** 100% by Volume

**Theoretical Coverage:**

- 1604 mil ft<sup>2</sup>
- 13 ft<sup>2</sup> @ 120 Mils

Allow for loss during mixing & application.

**VOC Value:**

- 0.0 lbs/gal per EPA Method 24

**Color:** 7000 Tan, 1028 Gray

### Substrate & Surface Preparation

Must be clean and dry. Any dirt, dust, oil, contaminants, loose rust or loose mil scale must be removed.

**Immersion Carbon Steel:** Minimum SSPC-SP10/NACE No 2 Near white. Surface profile 3.0-4.0 mil. Consult APCO sales rep for immersion limitations.

**Non-Immersion Carbon Steel:** SSPC- SP6 Commercial Blast, surface profile 2.0-3.0 Mil.

**Previously painted surfaces:** Remove old coating by abrasive blasting.

**Concrete:** Concrete must be cured 28 days at 75°F minimum. Prepare surface in accordance with ASTM D4258 surface cleaning of concrete. Maximum performance achieved when surface is abraded in accordance with ASTM D4259

**Primer:** APCO 900 Bonding primer is recommended on steel and concrete surfaces.

**Topcoats:** APCO 400HS

### Application Equipment

**Spray Application:** Plural-component proportioner

- **Minimum requirements**
- **Proportioner:** GRACO EXP2 or equal
- **Gun :** Fusion AP or Probler P2
- **Hoses:** 3/8" heated high pressure hoses
- **Dual drum transfer pumps**

### Material Specifications

**Components:** 2

**Mix Ratio:** 1 Part A : 1 Part B

**Set time:** 12-15 seconds @ 120°F Material Temperature

### Application

**Pre-application:** Preheat both components to 140°-160°F. During preheating part B needs to be under agitation, no agitation is required on part A.

**Temperature:** Application range from 0°F-150°F surface temperature. Surface temperature must be 5°F above the dew point. Application below 0°F is not recommended.

**Material Temperature:** Primary heaters for both parts A & B are to be set at 140°-160°F, hose heat is to be set at 120°F.

**Method:** Use overlapping passes along with crosshatching passes at right angles to achieve desired film thickness.

### Handling and post application

**Storage:** Keep in a dry climate controlled environment. Do not allow to freeze. Maintain minimum 60°F temperature, 70°F recommended.

**Special Handling:** Use dry air desiccant for intake vent on ISO drum.

**Shelf life:** 6 months from date of manufacture when stored in accordance with APCO recommendations.

**Inspection:** Holiday detection for may require high voltage holiday detection unit. Test per standard ASTM D5162 for steel and ASTM D4787 for concrete.

**Clean up & disposal:** For storage flush all equipment with butyl cellosolve. Dispose of all containers, flush solvents, and unused material in accordance with all local, state, and federal regulations.

**Dry film thickness:** Recommended 25-250 mils.

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### Handling continued

**Unit size:** 106 gallon kit

**Shipping weight:** 8.95 lbs per gallon

**UN Classification:**

Component A: Not regulated

Component B: Corrosive

**Physical protection:**

**Safety Data Sheets are available for this product. Before use any persons who may come in contact with this material should read and understand the SDS and product data sheet. Consult an APCO sales representative with any further questions.**

**Respiratory:** Minimum requirements are full face respirator with organic vapor cartridges. Although this product is free of volatile solvents, a full face respirator is required due to the isocyanates used in the material composition. **When spraying in confined spaces a NIOSH approved fresh air supplied respirator is required.**

**Clothing:** Cover all exposed skin. Use of protective coveralls and spray hoods are required.

### Physical Properties

**VOC:** 0.0 lbs per gallon ASTM D3960

**Solids Content:** 100%

**Gel Time:** 3-7 seconds

**Tack Free Time:** 12-15 seconds

**Max recoat time:** 6 hours

**Tensile Strength:** 2500-3000 psi ASTM D935

**Tensile Elongation:** 300-400% ASTM D638

**Modulus of elasticity:** ASTM D412

100%-1100 psi

300%-1400 psi

**Tear resistance:** 500 psi ASTM D624

**Hardness:** ASTM D2240 Shore D – 50

**Taber abrasion:** 133mg loss @ 1000 cycles of 100g ASTM D4060

**Immersion Limitations:** Not recommended for immersion service in strong organic acids, strong caustic solutions, strong aromatic or keytone solvents or methanol. Always consult an APCO technical representative before application into an immersion environment.