

## 355 Fire Tube Coating

Updated: January 2015

### Specification Data

**Description:** APCO 355 is used to extend the service life of immersed fire tube boilers in the oil & gas industry. Engineered to provide a hard, anti-corrosive, temperature and chemical resistant finish. 355 is self priming and well suited for both immersion and non-immersion service. 355 is formulated with highly inert pigments and the highest performing resins and cures in the industry.

**Features:**

- VOC compliant
- Superior chemical and abrasion resistance
- Excellent temperature resistance

**Solids Content:** 55% by Volume

**Theoretical Coverage:**

- 930 mil ft<sup>2</sup>
- 186 ft<sup>2</sup> @ 5 Mils
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Allow for loss during mixing & application.

**VOC Value:**

- 3.1 lbs/gal per EPA Method 24

**Color:** 3033 Green

**Temperature resistance:**

Wet: 350°F  
Dry: 425°F

### 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-SP5/NACE No 1 White Metal. Surface profile 1.5-2.0 mil.

**Non-Immersion Carbon Steel:** Minimum SSPC-SP3 Power tool Cleaning. For optimum performance SSPC- SP6 Commercial Blast, surface profile 1.5-2.0 Mil.

**Previously painted surfaces:** Surface must be sufficiently roughened, either by abrasive blasting or mechanical abrasion. Surface must attain a minimum 3B rating in accordance with ASTM D3359 "X-Scribe" test. Apply a test patch to check compatibility, prior to primary application.

**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

### Application Equipment

**Spray Application:**

- **Conventional:** Pressure pot with dual regulators, 3/8" I.D. material hose, Binks 2100 or 95 Gun w/66 series nozzles and 565 needle.
- **Airless:** Graco 30:1 Min. 1/4" material line. Silver+ Gun Tip size: .015-.017 Output PSI- 3000+

**Brush & Roller: Touch up only**

- **Brush:** Synthetic bristle
- **Roller:** 1/4" Nap cover with Phenolic Core

### Mixing & Thinning

**Components:** 2

**Mix Ratio:** 4 Part A : 1 Part B

**Pot Life:** 60 minutes at 75°F

**Mixing:** Power mix each part separately, then combine and mix to uniform color & consistency.

**Induction Time:** 15 Minutes.

Pot life is significantly shorter at higher temperatures and larger mixed volumes. Consult APCO technical representative for more information.

**Thinning:**

- **Spray:** Up to 12 oz/gal with S121 if necessary

### Application

**Pre-application:** Flush all equipment with thinner S121 or MEK

**Temperature:** Application range from 50°F-110°F surface temperature. Surface temperature must be 5°F above dew point. Do not apply below 50°F.

**Method:** Apply one coat maintaining a wet edge to achieve a wet film thickness of 4.0-5.5 Mils. Apply second coat of 3-4 mils after solvent has flashed off of first coat. Maximum performance will be achieved with two coats totaling 4-6 mils dry film thickness. Dry film thickness over 10 mils is not recommended.

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### **Application Continued**

**Inspection:** Test for voids in coating film using low voltage holiday detector, ASTM D5162. Dry film thickness can be measured with either a calibrated magnetic or electronic dry film thickness gauge.

**Clean up & disposal:** After use immediately flush all equipment with thinner S108 or MEK. Dispose of all containers, solvents and unused materials in accordance with all local, state and federal regulations.

#### **Curing schedule:**

Times based upon 75°F

Dry to touch: 4 hours

Max recoat: 36 hours

Return to service: 3 Days @ 75°F

**After 48 hours surface must be mechanically abraded or sweep blasted in order to be top coated.**

Dry times are greatly affected by weather conditions and film thickness.

#### **Packaging & Handling:**

Unit sizes: Pre-measured 1 gallon kit

Shipping Weight: 10.8 lbs/gal

UN Classification: UN1263, PAINT, CLASS 3, PGIII

**Limitations:** Immersion in certain strong acids or caustics may be limited. Consult APCO technical representative for more information.