



ESTABLISHED 1935

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## TECHNICAL BULLETIN

### P-403L Baking Phenolic Coating

Low V.O.C. Coating

**General Description:** Baking Phenolic Coating

**Intended Usage:** HERESITE P-403L material is a highly chemical resistant baked phenolic coating designed for use in tank tucks, railcars, and storage tanks and vessels and equipment where chemicals with a pH values less than 9 are likely to be encountered.

**FDA Status:** *This material meets the requirements of 21 CFR 175.300 for direct food contact.*

**Physical Data:**

**VOC:** As Supplied

3.02 lbs. /gal. (357 gm/L)

**Thinned 10% with S-215:**

3.36 lbs. /gal. (398 gm/L)

**Solids**

65.18 % by volume

69.05 % by weight

**Coating Density**

10.71

**Thinning Solvent Density:**

S-215: 6.75 lbs./gal.

**Approximate Shipping Weights:**

P-403L: 13 lbs. per 1 gal; 59 lbs. per 5 gal.

S-215: 8.5 lbs. per 1 gal; 38 lbs. per 5 gal.

**Color:** Brown

**General Chemical Resistance**

This coating offers excellent immersion service resistance to 70%-98% sulfuric acid at temperatures to 120°F. It has also show excellent resistance to solvents, acids, salts and mildly alkaline solutions. Please consult the Chemical Resistance Guide, Sales Representative or Manufacturer for your specific requirements. Some examples are:

- Sulfuric Acid
- Phenol
- Anhydrous Chlorobenzene
- Carbon Tetrachloride
- Ethyl Alcohol

**Coverage:**

Theoretical coverage is 1,040 square feet per gallon per mil. This equates to 138 square feet per gallon at 6 mils dry film thickness with a 20 % loss factor.

**Shelf Life:**

8 months from date of purchase when stored @ or below 70°F (21°C)

**Abrasion Resistance:**

80 mg. weight loss per 1,000 cycles cs-17 wheel with 1,000 gram weight.

**Flexibility:**

Passes 1 inch on a Mandrel Bend Test

**Temperature Limits:**

P-403L accepts dry heat temperatures up to 400°F (204°C).

**Recommended Total DFT:**

Recommended DFT is 5.0 - 7.0 mils (125-175 microns) in a two to three coat application; approximately 5 wet mils will achieve 3 dry mils.

## APPLICATION INSTRUCTIONS

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application. It is assumed that the proper product recommendations have been made. These instructions should be followed closely to obtain the maximum service from the materials.

**CAUTION:** CONTAINS FLAMMABLE SOLVENTS. KEEP AWAY FROM SPARKS AND OPEN FLAMES. IN CONFINED AREAS WORKMEN MUST WEAR FRESH AIR LINE RESPIRATORS. HYPERSENSITIVE PERSONS SHOULD WEAR GLOVES OR USE PROTECTIVE CREAM. ALL ELECTRICAL EQUIPMENT AND INSTALLATIONS SHOULD BE MADE AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. IN AREAS WHERE EXPLOSION HAZARDS EXIST, WORKMEN SHOULD BE REQUIRED TO USE NONFERROUS TOOLS AND TO WEAR CONDUCTIVE AND NONSPARKING SHOES.

### Surface Preparation

#### Steel:

**Immersion:** A white metal blast in accordance with NACE #1 or SSPC-SP-5 Specifications.

**Non-immersion:** A commercial blast is acceptable in accordance with NACE #3 or SSPC-SP-6 Specifications.

Surface profile or anchor pattern should be 20-25% of the recommended dry film thickness.

#### Equipment

1. All spray equipment shall be thoroughly cleaned and free of old paint film and other contaminants.
2. Air supply shall be free of oils and water.
3. Airless spray equipment: 1800-2200 PSI liquid pressure. Tip size from .017" to .021

**Primer:** Self priming on steel.

#### Thinning:

Suggested thinning at 77°F (25°C) is 10-15% based on coating volume using Heresite S-215 solvent. This coating is designed for airless systems and sprays well at viscosities of 45 seconds on a Zahn #4.

### Application:

1. Do not apply if the temperature is less than 5°F (2°C) above the dew point.
2. Adjust the air pressure to approximately 60-75 pounds pot pressure. Adjust spray gun by first opening liquid valve and then adjust air valve to give approximately an 8-12 inch fan.
3. Holding gun perpendicular to the surface at a distance of 12 inches, apply a mist bonding pass.
4. Allow to flash off for several minutes, but not long enough to allow film to completely dry.
5. Apply 3 to 4 criss-cross multi passes maintaining a wet appearing film.
6. Repeat Step #5 until desired film thickness is obtained.
7. Allow 60 minutes with ventilation prior to introducing heat.
8. After the air dry period has elapsed, the temperature should be raised approximately 40°F (22°C) in increments of 30 minutes until the desired temperature is reached.

### Bake Schedule

#### Intermediate Bake:

Metal Temperature to 175-200°F (93°C) for 10 to 12 minutes.

#### Final Bake:

Metal Temperature to 400°F (204°C) for 1 to 1 ½ hours.

### Cleanup Solvent: S-215

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