



ESTABLISHED 1935

P-403 TECHNICAL BULLETIN

October 2008

GENERIC TYPE: Baking Phenolic

RECOMMENDED USAGE: HERESITE P-403 baking phenolic coating offers consistent, high quality protection in a wide range of applications including immersion service for most acids, solvents and salts.

TYPICAL APPLICATIONS INCLUDE: Tank linings, heat transfer equipment, piping, fans, blowers, tank cars, tank trailers, duct work, exhaust hoods, and other industrial equipment.

Heresite P-403 meets the requirements of the U.S. Federal Register, Food and Drug Regulations, Title 21, Paragraph 175.300 FDA and M.I.D. of U.S.D.A.

CHEMICAL RESISTANCE GUIDE:

Exposure Immersion Splash & Spillage

Acids	Excellent	Excellent
Solvents	Excellent	Excellent
Inorganic		
Salts	Excellent	Excellent
Water	Excellent	Excellent

Not recommended for strong oxidizing agents or caustics. For exact chemical resistance, contact Heresite for Chemical Resistance Guide. High air movement during application will require slower evaporating solvent (contact Heresite).

Whenever a recommendation is required concerning chemical or corrosive resistance of a HERESITE coating, it is suggested a complete description of the environment be forwarded to Heresite or a Heresite Representative. Our recommendation will be returned promptly.

ORDERING INFORMATION:

Shipping Weight:

P-403 Approx. 12 lbs. /gal.

S-215 Approx. 7 lbs. /gal.

S-225 Approx. 7 lbs. /gal.

Flashpoint (T.C.C):

P-403 62°F (17°C)

S-215 Solvent 62°F (17°C)

S-225 Solvent 62°F (17°C)

Physical Data:

Solids by wt: approx 60%

Solids by vol: approx 41%

Pot life: N/A

Shelf life: 6 mos. @ 70°F. (21°C)

Viscosity: 80 - 90 K.U. (Kreb Units)

ABRASION RESISTANCE: A 40mg loss is observed with a Tabor Abrasor CS-17F wheel with a 1000 g. weight for 1000 cycles.

THERMAL CONDUCTIVITY: 7000 BTU per hr per sq. ft. per ° F per mil thickness.

Hardness (Tabor Shear): 1400

THERMAL EXPANSION COEFFICIENT:

2.5 X 10⁻⁵ per °C.

TEMPERATURE LIMITATION: HERESITE P-403 accepts dry heat temperatures up to 400°F (205°C).

V.O.C. 3.7 lbs. /gal. as supplied. For lower VOC see Heresite P-403L

Standard Color: Brown

Coverage: Theoretical coverage - 658 sq. ft. per gallon per mil. Recommended total dry film thickness is 5.0 to 7.0 mils in 3-4 coats (at 6 mils DFT average coverage would be 88 sq ft per gallon.) This includes a 20% loss factor.

Recommended Total DFT:

Recommended DFT may vary depending upon metal conditions and service - Please contact your representative or the main office for your specific application.

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.

Preparation: Remove all oil, grease and other contaminants from the surface with an appropriate solvent or cleaner.

Steel:

Immersion: A white metal blast is required 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 shall be 20-25% of the recommended dry film thickness.

Primer: Self-priming.

Mixing: Mix thoroughly and adjust viscosity as follows:

Conventional Spray: - #2 Zahn approx. 30 - 35-seconds.

Airless spray - #4 Zahn approx. 18-20 sec.

This is only a guide. The viscosity may vary based on equipment being used. Spray a sample panel and make necessary changes in viscosity to achieve optimum spray pattern results.

Thinner: Under normal conditions we recommend use of Heresite S-215 Solvent. In hot weather or open environments we suggest S-225.

Thinning: The type and amount of thinner required is dependent upon temperature, ventilation, humidity, spray equipment used, and desired film thickness. Suggested thinning at 75°F (24°C) is 15-20%.

Bake Schedule

Intermediate Bake

Normal

Surfaces

175°F. – 200°F. (93°C)
for 10-20 minutes

Final Bake

Normal

Surfaces

400°F. (204°C)
for 1 - 12 hours

Do not apply if temperature is less than 5°F (2°C) above dewpoint.

Application:

1. All spray equipment shall be thoroughly cleaned and the hoses in particular shall be free of old paint film and other contaminants.
2. Use standard production type spray guns for conventional air spraying:
Airless spray equipment: 2000-2400 PSI liquid pressure. Tip size from .017" to .019". Thinning requirements are less for airless spraying.
3. For conventional spraying, air supply shall be uncontaminated. Adjust air pressure to approx. 60-80 lbs. at the gun and provide 15-20# pot pressure. Adjust spray gun by first opening liquid valve and then adjust air valve to give approx. an 8"-12" fan, holding gun perpendicular to the surface at a distance of 12".
4. Apply a mist bonding pass.
5. Allow to flash off for several minutes, but not long enough to allow film to completely dry.
6. Apply 3-4 criss-cross multi-passes maintaining a wet appearing film.
7. Air dry approx. 20-30 minutes with ventilation, prior to introducing heat.
8. After the air dry period has elapsed, the temperature should be raised approx. 40°F (22°C) in increments of 30 mins. until the desired temperature is reached. See Bake Schedule.

Clean Up: Use HERESITE S-215 Solvent

Storage Conditions: Coating should not be stored longer than 6 months at 70°F (21°C). Cans should be turned upside down every three months. Warmer temperatures may shorten the life of the coating.