



TECHNICAL BULLETIN

CSE-6100

January 2009

Generic Type: A two package, amine cured, cold set epoxy phenolic.

Recommended Usage: HERESITE CSE-6100 Series epoxy phenolic coatings are specifically formulated for immersion or industrial maintenance application.

Heresite CSE-6100 can be applied to concrete and metallic substrates. It provides outstanding chemical resistance to a wide range of acids, alkalis, salts, petroleum products and other aqueous solutions.

Heresite CSE-6100 Series epoxy coatings are excellent for hot water service and can withstand temperatures up to 250°F (121°C) in deionized water.

Chemical Resistance Guide:

<u>Exposure</u>	<u>Immersion</u>	<u>Splash & Spillage</u>
Acids	Good	Excellent
Alkalis	Good	Excellent
Solvents	Fair	Good
Inorganic Salts	Excellent	Excellent
Water	Excellent	Excellent

Force Curing is required when exposure is severe.

Ordering Information:

CSE-6100 Coating: Approx. 12 lbs. / gal.
 S-330 Solvent: Approx. 7 lbs. / gal.
 S-320 Solvent Approx. 7 lbs. / gal.

Flashpoint: (T.C.C.)

CSE-6100 Coating 23°F (-5°C)
 S-330 Solvent 23°F (-5°C)
 S-320 23°F (-5°C)

Primer: Not Required.

Packaging: CSE-6100 Series is available in 1 gallon and 5 gallon kits.

Shelf Life: 24 months at 70°F (21°C) in unopened

containers.

Physical Data:

Solids by Weight: Approximately 76%
 Solids by Volume: Approximately 63%
 (Note: Solids Vary with Color)
 Viscosity: 70-80 Krebs Units
 Flexibility: Mandrel 1/2" Bend

Temperature Limitations: Dry heat temperatures up to 250°F (121°C). Temperature excursions up to 400°F (205°C) can be tolerated for short durations.

V.O.C.: 2.9 lbs. / gal. as supplied

Standard Colors:

CSE-6106 Gray, CSE-6108 Ivory

Coverage: Theoretical Coverage - 914 square feet per gallon per mil. (At 13 mils DFT - average coverage would be 56 square feet per gallon. This includes a 20% loss factor.)

Recommended total dry film thickness is as follow:

<u>Environment</u>	<u>Dry Film Thickness</u>	<u># of Coats</u>
Immersion	12 to 14 mils	2
Highly Corrosive		
Fumes	12 to 14 mils	2
Mildly Corrosive		
Fumes	7 to 10 mils	2
Maintenance	6 to 7 mils	1

Surface Preparation: Remove all oil, grease, and other contaminants. All seams should be continuously welded, weld splatter removed and all edges radiused. (See Bulletin No. 113, "Fabrication Specifications.")

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.

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.

Concrete: Remove protrusions by sanding or grinding. Concrete must be cured at 70°F (21°C) and 50% relative humidity for 28 days.

Immersion: Dry abrasive blast to open all voids. Blow or vacuum off residue

Non-Immersion: Surface must be acid etched or abrasive blasted to remove laitance.

Equipment

1. All spray equipment shall be thoroughly cleaned and free of old paint film and other contaminants.
2. Use standard type conventional or airless spray guns.
3. Air supply shall be uncontaminated.
4. Airless spray equipment: 1800-2200 PSI liquid pressure. Tip size from .015" to .019". Thinning requirements are less than required for conventional spray.

Mixing: Stir Part A thoroughly, then stir Part B thoroughly. Add the contents of Part B to the container of Part A. Mix thoroughly and allow the mixed material to age 30 minutes before using. Mixed material must be used within 12 hours.

Primer: Self priming on steel. On concrete, a primer coat is recommended, consisting of 1 part coating to 2 parts solvent.

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 20 - 30%. Heresite S-330 solvent is the fastest drying. It is recommended for normal applications. Heresite S-320 solvent can be used when a slower drying solvent is required.

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 80 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. Clean equipment with HERESITE S-320 solvent or S-330 solvent.
8. Let first coat dry with ventilation for 16 hours.
9. For second coat, repeat Steps 1 through 7.
10. Coating should be fully cured according to the following schedule.

70°F (21°C) - 7 Days

50°F (10°C) - 14 Days

Force Cure:

1. If force curing is required, air dry with ventilation for approximately 1 hour.
2. After the air dry has elapsed, the temperature should be raised in 40°F (22°C) increments every 30 minutes.
3. Hold at desired curing temperature according to following schedule to effect final cure:
 - 130°F (55°C) - 18 Hours
 - 160°F (71°C) - 4 ½ Hours
 - 200°F (93°C) - 1 ¾ Hours

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