



Highland International, Inc.

Engineered Paint Systems

Chem-Temp 74-IS Series Hybrid Epoxy Novolac DTM Liner Coating

Chem-Temp 74-IS Series is a thin film 2-K Hybrid Epoxy Novolac Liner Coating that offers exceptional temperature and chemical protection. Specifically formulated for In Situ application, 74-IS Series provides superior barrier properties against acidic, caustic, and high heat environments. Chem-Temp 74-IS Series also offers excellent adhesion and corrosion resistance with a temperature rating of 250°F for immersion and 350°F for dry heat, making it the premium choice for high performance against corrosive cargo.

Vehicle Type: Hybrid Epoxy Novolac
Pigmentation: Lead Free
Reducer: Not necessary, if desired:
#740S (slow) also reduces surface tension,
#740M (medium), or
#740F (fast) reducers
Mix Ratio: 1:1 w/74-IS-100
Pot Life: 3 Hours @ 77°F (Decreases at higher temperatures)
Volume Solids: 74%
Theoretical Coverage: 1186 ft²/gal. @ 1mil DFT
VOC: < 202 g/L
Flash Point: 16°F (lowest flashing component)
Recommended DFT: 10-16 mils DFT

Dry-time:	20°F*	40°F	60°F	80°F
Minimum Recoat:	26 hrs.	9 hrs.	5 hrs.	4 hrs.
Dry Hard:	53 hrs.	17 hrs.	10 hrs.	7 hrs.
Maximum Recoat:	30 days	30 days	30 days	30 days
Cure Time:	5-7 Days @ 77°F			
Shelf Life:	1 Year from DOM			
Finish:	Eggshell			
Color:	Oxide Red			

Advantages of 74 Series Chem-Temp

- Next generation polymer technology specifically engineered for heat stability and chemical resistance
- Dry heat stability up to 350°F, immersion up to 250°F
- Superior resistance to a wide variety of chemicals and solvents
- Superior abrasion resistance
- Superior adhesion even over marginally prepared surfaces
- Excellent corrosion resistance
- Low Temperature Cure to 0°F*
- Specially engineered inert filler package provides superior barrier properties
- Superior substrate wetting provides excellent adhesion and corrosion protection
- Ultra-high crosslink density provides a tough durable film with long lasting protection.

* Extended low temperature cure data is available upon request

Typical Systems

Direct to Metal

74-IS Series (10-16 mils total DFT applied in 2-4 uniform coats)

Surface Preparation

- 1) For immersion, SSPC-SP5 White Metal Blast Cleaning is preferred; however, minimum acceptable surface preparation should be in accordance with SSPC-SP10 Near White Metal Blast Cleaning, with a 2.5-3 mil jagged profile. All Surfaces to be painted should be dry and free of all foreign contaminants.
- 2) For non-immersion service, surface preparation should be in accordance with SSPC-SP10 Near White Metal Blast Cleaning. When Near White Metal Blast is not an option, SSPC-SP6 Commercial Blast Cleaning may be acceptable – Consult a Highland Representative. All surfaces to be painted should be clean, dry and free of all foreign contaminants.

Mixing and Application Requirements

- 1) Mix 1 Part “A” Activator with 1 parts “B” Base by volume.
- 2) Mixed material is ready for use after a 30 minute induction period.
- 3) Reduction is not necessary, but if desired, you may reduce up to 10% with appropriate Highland #740 Reducer.
- 4) Apply a minimum of 4 mils DFT per coat
- 5) Allow one week @ 77°F before being put into service for immersion.
- 6) The second coat/topcoat must be applied within 36 hours @ 77°F or the surface will need to be scuffed.
- 7) May be force cured – contact Highland representative for specifics.

Method of Application

Conventional Gun: DeVilbiss MBC-510

Fluid Tip: E
Air Cap: 704
Atomizing Pressure: 70 psi
Pot Pressure: 15-20 psi
Hose: ½ inch ID

Airless Gun: Graco 205-591
Pump: 30:1/45:1/60:1, Gas pump acceptable
Tip Range: 3.013 – 4.017
Pump Pressure: 1800 psi minimum
Hose: 3/8 inch ID

Brush or Roller: Natural or synthetic bristle
Clean Up: Clean all equipment with MEK

PIGing Application: Information proprietary based on contractor experience

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Safety Precautions

- 1) Use normal precautions such as gloves, facemasks and barrier creams.
- 2) Adequate ventilation must be maintained. In confined areas, workmen must wear constant flow airline respirators.
- 3) If product comes into contact with skin, wash thoroughly with lukewarm water or diluted Boric Acid, and obtain immediate medical attention.
- 4) This product contains **FLAMMABLE** materials. Keep away from sparks and open flames. Observe **NO SMOKING** regulations.
- 5) All electrical equipment and installations should conform to NEC regulations. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools, and to wear conductive, non sparking shoes.
- 6) Observe low flash regulations.
- 7) Refer to Material Safety Data Sheet (MSDS) for complete safety instructions.

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