

# 74-IS Series

## ChemTemp Hybrid Epoxy Novolac 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.

### Tech Specs

<b>Heat Resistance:</b>	250°F for immersion services 300°F for dry heat services
<b>Vehicle Type:</b>	Hybrid Epoxy Novolac
<b>Reducer:</b>	Not Normally Required
If desired:	#740S (slow) #740M (medium) #740F (Fast)
<b>Mix Ratio:</b>	1:1 Base to Activator
Base:	74-IS-####
Activator:	74-IS-100
<b>Pot Life:</b>	3 Hours @ 77°F (Decreases in higher temperatures)
<b>Volume Solids:</b>	74%
<b>Theoretical Coverage:</b>	1187ft <sup>2</sup> /gal. @ 1 mil DFT
<b>VOC:</b>	<247 g/L
<b>Flash Point:</b>	16°F (Lowest Flashing Component)
<b>Dry Film Thickness:</b>	10-16 mils DFT in 2 coats

<b>Wet Film Thickness:</b>	6.8 – 10.8 mils WFT per coat			
<b>Dry-Time:</b>	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
Full Cure:	3-7 Days (force cure optional)			
<b>Return to Service:</b>	40°F	50°F	70°F	
	7 Days	5 Days	3 Days	

Return to service recommendations are based on DSC Scanning to determine % cure, obtained by 3<sup>rd</sup> party testing facility. Full test report available upon request.

<b>Shelf Life:</b>	2 Years Minimum
<b>Finish:</b>	Eggshell
<b>Color:</b>	Oxide Red
<b>Packaging:</b>	10 Gallon & 1 Gallon Kits
<b>Storage Temperature:</b>	20°F - 110°F

### Surface Preparation

All surfaces should be clean, dry and free of all foreign contaminants.  
A SSPC-SP1 Solvent Cleaning with Highland 901 Cleaning Solvent is recommended before blasting or other cleaning method.

#### Carbon Steel - Immersion:

Obtain a 2-3 mil angular blast profile using one of the recommended methods below.  
**Best:** A SSPC-SP5/NACE 1 White Metal Blast Cleaning is recommended for maximum coating performance and longevity.  
**Good:** A SSPC-SP10/NACE 2 Near White Metal Blast Cleaning provides good results.

#### Carbon Steel - Non-Immersion:

Obtain a 2-3 mil angular blast profile using one of the recommended methods below.  
**Best:** A SSPC-SP10/NACE 2 Near White Metal Blast Cleaning is recommended for maximum coating performance and longevity.  
**Good:** A SSPC-SP6/NACE 3 Commercial Blast Cleaning provides good results.

#### Galvanized Steel:

Contact a Highland representative as recommendation will vary depending on substrate and exposure conditions.

Note: The second coat/topcoat must be applied within 36 hours at 77°F or the surface will need to be scuffed.

## Mixing & Application

**Mixing:** Highland 74-IS Series needs to be thoroughly mixed using mechanical agitation. Mix entire contents of Part "A" Activator (74-IS-100) with Part "B" Base (74-IS-####) (1:1 by volume) Product is ready to apply after proper mixing and a 30 minute induction period.

**Reduction:** Reduction is not required, if desired, reduce by 0% - 10% with Highland #740 reducer.

Highland 74-IS Series is designed for spray application. To ensure optimal performance, apply according to recommendations below.

**Airless Gun:** Graco 205-591  
**Pump:** 30:1/45:1/60:1  
**Tip Range:** 3.013 – 4.017  
**Pump Pressure:** 1,800 psi Minimum  
**Hose:** 3/8 inch ID

**PIGing Application:** Information proprietary based on contractor experience

**Brush or Roller:** Both are acceptable for touch up.

**Conventional Gun:** DeVilbiss MBC-510  
**Fluid Tip:** E  
**Air Cap:** 704  
**Atomizing Pressure:** 70 psi  
**Pot Pressure:** 15-20 psi  
**Hose:** 1/2 inch

**Clean Up:** Highland #901 Cleaning Solvent

## Typical Systems

**Standard/Immersion Service:** Apply 10-16 mils DFT of 74-IS Series in 2-4 uniform coats.

## Advantages

- Next generation polymer technology specifically engineered for heat stability and chemical resistance
- Dry heat stability up to 300°F, immersion up to 250°F
- Superior resistance to a wide variety of chemicals and solvents
- Low Temperature Cure to 0°F
- Superior abrasion resistance
- Superior adhesion even over marginally prepared surfaces
- Excellent corrosion resistance
- Ease of application
- 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

## Safety Information

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

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