

# 70-HF Series

## ChemTemp High Performance Universal Epoxy



ChemTemp 70-HF Series is a high-solids, 2-K High Performance Epoxy Coating formulated for an array of applications including interior liners for vessels, tanks, and pipelines carrying mild to medium cargos (process water, fuels, crude oil etc.) operating at ambient to 200F. 70-HF may also be used for exterior services that require exceptional surface tolerance, corrosion protection, and abrasion resistance in an easy to apply formulation. This universal epoxy has an engineered viscosity allowing for more consistent spray applications in small or large diameters and regardless of equipment: airless, lance, conventional, or specifically engineered. ChemTemp 70-HF Series also offers extended pot life workability and low temperature cure characteristics for easier applications and a quick return to service in lower temperatures.

### Tech Specs

Heat Resistance:	200°F for immersion services
Vehicle Type:	Epoxy
Reducer:	Not Normally Required
If desired:	#740S (slow) #740M (medium) #740F (Fast)
Mix Ratio:	4:1 Base to Activator
Base:	70-HF-####
Activator:	70-AHF-100
Pot Life:	6 Hours @ 77°F (Decreases in higher temperatures)
Volume Solids:	80%
Theoretical Coverage:	1283ft <sup>2</sup> /gal. @ 1 mil DFT
VOC:	<180g/L

Flash Point:	16°F (Lowest Flashing Component)			
Dry Film Thickness:	10-16 mils DFT in 2-4 coats			
Wet Film Thickness:	5 – 10 mils WFT per coat			
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:	15 days	7 days	5 days.	48 hrs.
Full Cure:	3-7 Days (force cure optional)			
Shelf Life:	2 Years Minimum			
Finish:	Semi-Gloss			
Color:	Off White, Gray, Custom Colors			
Packaging:	1, 5 and 50 Gallon Kits			
Storage Temperature:	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.

OR

**Good:** Hand or power tool clean with acid washing to achieve a visual cleanliness level of SSPC-SP 10 with a minimum 1 mils etched profile.

#### 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:** Allow 3 days at 77°F before being put into service (unless force cured). 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 70-HF Series needs to be thoroughly mixed using mechanical agitation. Mix entire contents of Part "A" Activator (70-AHF-100) with Part "B" Base (70-HF-####) (4:1 by volume) Product is ready to apply after proper mixing and a 15 minute induction period.

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

Highland 70-HF Series is designed for various spray applications. To ensure optimal performance for alternate forms of application equipment, please consult a Highland representative for additional recommendations.

**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:** See 70-IS: 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 4 -16 mils TDFT of 70-HF Series in 1-2 uniform coats.

## Advantages

- Next generation polymer technology specifically engineered for surface tolerance and high performance
- Immersion stability up to 200°F
- Superior resistance to a wide variety of chemicals, solvents, and fuels
- Low temperature cure to 0°F
- Very good abrasion resistance
- Superior adhesion even over marginally prepared surfaces
- Superior adhesion to low profiles
- Excellent corrosion resistance
- Ease of application
- Extended pot-life for consistent workability
- Engineered specifically for spray applications
- Superior durability compared to competitor products in the same category

## 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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