

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, pipelines carrying mild to medium cargos (process water, fuels, crude oil etc.) up to 212F/100C. 70-HF may also be used for CUI and other exterior services that require exceptional surface tolerance, corrosion protection, and abrasion resistance from ambient up to 250F/121C. This versatile coating will also perform well with dry-heat excursions up to 350F/176C. 70-HF's engineered viscosity allows for more consistent spray applications regardless of diameter, or 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.

Tech Specs

Heat Resistance:	212°F for immersion services 250°F for dry heat with Excursions to 350°F
Vehicle Type:	Hybrid 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 ² /gal. @ 1 mil DFT
VOC:	<180g/L

Flash Point:	16°F (Lowest Flashing Component)				
Dry Film Thickness:	6-16 mils DFT in 1 to 2 coats 6-10 mils DFT per coat				
Wet Film Thickness:	7.5 – 12.5 mils WFT per coat				
Dry-Time:	32°F	40°F	60°F	80°F	100°F
Min. Recoat:	20 Hrs.	12 Hrs.	4 Hrs.	3 Hrs.	45 Min.
Dry Hard:	24 Hrs.	16 Hrs.	8 Hrs.	6 Hrs.	1 Hr.
Max. Recoat:	30 Days*	30 Days*	30 Days*	30 Days*	30 Days*
Full Cure:	5 Days	48 Hrs.	9 Hrs.	7 Hrs.	2 Hrs.
To Insulate:	48 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.	24 Hrs.

*Where recoating with 70-HF Series

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: If maximum recoat time has expired, the surface will need to be scuffed prior to recoating or topcoating.

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 up to 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

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

Immersion Service: Apply 12 -16 mils TDFT in 2 uniform coats.

CUI Service: Apply 6-16 mils TDFT in 1-2 coats

Exterior Service: Apply 2-10 mils DFT (Primer) or 4-10 mils DFT (DTM) in 1 coat

Advantages

- Hybrid polymer technology specifically engineered for surface tolerance and high performance
- Immersion stability up to 212°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
- Excellent for CUI service up to 250°F
- Excellent corrosion resistance
- Ease of application
- Extended pot-life for consistent workability
- Engineered specifically for wide array of 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