Protective & Marine Coatings
PRODUCT DATA SHEET

HEAT-FLEX® 750
ALKYLATED AMIDE EPOXY

Revised 04/2025 Issue 3

PRODUCT DESCRIPTION

A high solids micaceous iron oxide filled alkylated amide epoxy providing both corrosion resistance and high temperature resistance. The micaceous iron oxide provides higher temperature resistance, improved anticorrosion performance, film reinforcement, tolerance to over film thickness, and lower moisture permeation.

RECOMMENDED USE

• External protection for process pipes, valves and vessels operating continuously between the temperatures of -196°C and 204°C with excursions to 230° C.
• Suitable for use on both carbon and stainless steel in insulated, uninsulated and cryogenic environments

PRODUCT TECHNICAL DATA

Volume Solids: 78 ± 2 %, mixed (ASTM-D2697-91)

Weight Solids: 88% ± 2 %

VOC: < 250 g/l EPA Method 24, mixed

Colours: Grey and Dark Grey
Finish: Matt
Minor color change may be exhibited in exposed service, but will not affect performance.

Flash Point: Base: 24°C, Hardener: 25°C

Cleanser/Thinner: MEK (Methyethylketone) or Thinner C13 for cleaning. In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime.
Thinning is normally not recommended. Do not reduce for ambient applications as it can affect film build, appearance and adhesion.
If reduction is required for conventional spray or brush/roller application use MEK up to a maximum of 10% by volume (4% by weight).
Thinning will affect VOC compliance, sag tolerance and dry film thicknesses.

Pack Size: A two component material supplied in separate containers to be mixed prior to use:
18 litre (37.4 kg) units when mixed
Weight will vary with colours and density.

Mixing Ratio: 4 parts base to 1 part hardener by volume
100 parts base to 10 parts hardener by weight

Density: 2.08 kg/l (may vary with colours)

Shelf Life: 12 months from date of manufacture, stored in originally sealed containers in a cool and dry environment and store indoors at +5°C to +40°C

Recommended Application Methods:
Airless Spray, Conventional Spray, Brush and Roller

Typical Thickness:

Recommended Spreading Rate Per Coat

	Typical	Maximum
Dry	100 µm	200 µm
Wet	128 µm	256 µm
Theoretical Consumption*	0.267 kg/m² 1.128 l/m²	
Theoretical Coverage*	3.75 m²/kg 7.80 m²/l	

*This figure makes no allowance for surface profile, uneven application, overspray or losses in containers and equipment.
Film thickness will vary depending on actual use and specification.

Pot Life:

+ 15°C	+ 23°C	+ 35°C
2.5 hours	1.5 hours	1 hour

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AVERAGE DRYING TIMES

For 100 µm Dry Film Thickness

	+ 15°C	+ 23°C	+ 35°C
To touch	75 min	45 min	30 min
To handle	10 hours	6 hours	3 hours
To recoat (min)	6 hours	4 hours	2 hours
To recoat (max)	60 days	60 days	60 days

Prior to further applications all contamination must be removed. In the case of extended recoating times consult Sherwin Williams customer service.

These figures are given as a guide only. Factors such as air movement, film thickness and humidity must also be considered.

APPROVALS & ENDORSEMENTS

Tested and approved to ISO 19277 CUI 3
ISO 12944 CX

SURFACE PREPARATION

Ensure surfaces to be coated are clean, dry and free from all surface contamination such as oil, grease, dirt and corrosion products to achieve satisfactory adhesion.

Steel:
Abrasive blast clean to Sa2½ (ISO 8501-1:2007), 50 - 75 µm profile.
Stainless steel:
Sweep blasting according to ISO 12944-4 with a non-ferrous blasting abrasive, 50 µm profile.

MIXING

Fill base in a container and add hardener/catalyst at the specified mixing ratio. Stir thoroughly until a homogeneous compound is obtained.

We recommend to fill the mixed material into a clean container and mix again shortly as described above to avoid incorrect mixing.

APPLICATION CONDITIONS

Substrate temperature shall be between +5°C and +150°C and at least 3°C above the dew point.
Air and material temperature shall be between +10°C and +50°C.
Relative air humidity shall be between 35% and 85 %.

APPLICATION EQUIPMENT

Changes in pressures and tip sizes may be needed for satisfactory application characteristics. Always purge spray equipment before use with listed cleaner. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Airless Spray
Unit: Efficient airless equipment
tip Size 0.38 – 0.48 mm (0.015 – 0.019 inch)
Operating Pressure: 150 bar

The airless spray details given above are intended as a guide only. Details such as fluid hose length and diameter, paint temperature and job shape and size all have an effect on the spray tip and operating pressure chosen.
As conditions will vary from job to job, it is the applicators responsibility to ensure that the equipment in use has been set up to give the best results.
If in doubt consult Sherwin-Williams customer service.

Conventional Spray
Atomising Pressure: 3,5 bar
Fluid pressure: 0.3 bar
Reduction: As needed up to 10% by volume (4% by weight) using MEK or Thinner C13 by volume.

Brush
The material is suitable for brush application to small areas.
Application of more than one coat may be necessary to give equivalent dry film thickness to a single spray applied coat.
Use natural bristle
Reduction: As needed up to 10% by volume (4% by weight) using MEK or Thinner C13 by volume.

Roller
The material is suitable for roller application to small areas.
Application of more than one coat may be necessary to give equivalent dry film thickness to a single spray applied coat.
Use 3/8” woven with solvent resistant core.
Reduction: As needed up to 10% by volume (4% by weight) using MEK or Thinner C13 by volume.

RECOMMENDED SYSTEMS

Steel and Stainless Steel
2 x 125 - 250 µm HEAT-FLEX® 750

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ADDITIONAL NOTES

Do not tint.

Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

Do not mix previously catalyzed material with new.

If an aesthetic finish is required for ambient temperatures up to 120°C, then Heat-Flex 750 is compatible with a wide range of Sherwin-Williams polyurethane, polysiloxane and NCO free finishes. At temperatures above 120°C, please consult with your Sherwin-Williams Representative.

For weld areas and small touch up repairs, power tool cleaning to St 3 according ISO 8501-1 is suitable. Optimal performance will be achieved with a minimum surface profile of 50 microns.

For application to substrate temperatures in excess of 100°C apply coating in several thin passes to allow solvent to escape and to prevent blistering. Allow at least 15-20 minutes between each coat.

HEALTH & SAFETY

Consult Product Health and Safety Data Sheet for information on safe storage, handling and application of this product.

WARRANTY

Whilst all statements made about our products (whether in this data sheet or otherwise) are correct and accurate to the best of our knowledge, we have no control over the quality or the condition of the substrate, the application conditions or the many other factors affecting your use and application of our product.

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