



Thurmalox 8704K VOC Compliant Air-Dry Heat-Resistant Coating Single Component Aluminum

Description

Thurmalox 8704K is a single component, high temperature, VOC compliant, aluminum coating for use on OEM equipment and hot process equipment in a multitude of industries subjected to ambient or elevated temperatures. Thurmalox 8704K is a direct to metal finish system providing outstanding adhesion, film integrity, weathering and thermal shock resistance when applied to properly prepared surfaces.

Recommended Uses

- Valves, Pumps, Piping
- Engines, Manifolds, Exhausts and Silencers
- Furnaces
- Vessels

Features

- Single Component
- Brilliant Aluminum Finish
- Excellent for ambient or high temperature applications
- Does not require a heat cure

Not Recommended For

- Immersion or insulated service conditions
- Application to galvanized or zinc primed surfaces

Substrates

Clean, smooth steel, blasted steel, phosphatized steel, and primed steel.

Surface Preparation

1. To ensure optimum long-term coating system performance, surfaces must be clean, dry, and free from dirt, oil, grease, salts, welding flux, mill scale, rust, oxides, old paint, corrosion products, visible and non-visible contaminants, or other foreign matter detrimental to the adhesion of this coating as outlined in SSPC-SP1 "Solvent Cleaning".
2. Remove all surface imperfections that will induce premature coating system failure. Chip or scrape off weld splatter. Grind down sharp and rough welds, edges, gouges, slivers, and pits in accordance to NACE SPO178.

3. For mild corrosive environments solvent cleaning in accordance to SSPC-SP 1 is the minimum cleanliness standard recommended. For carbon steel and cast-iron surfaces in a more severe corrosive environment, prepare the surface in accordance to "SSPC-SP 10 Near-White Metal Blast Cleaning Standard" or NACE standard No. 2 with a sharp angular surface profile of 0.5-1.0 mil (12-25µm). For severe corrosive environments please consult your local Dampney representative for project specific coating system recommendations.

Mixing

Redisperse any settled-out pigments by thorough mixing to a uniform homogeneous consistency with an explosion proof or air driven power mixer. Do not open containers until ready. Keep Lid on container when not in use.

Application Guidelines

Surface temperature must be at least 5°F (3°C) above dew point. Do not apply at temperatures below 50°F (10°C) or under conditions where temperatures may drop below 50°F (10°C) within 24 hours after application. Apply one or two coats of Thurmalox 8704K to a dry film thickness of 1.0 - 2.0 mils (25 - 50 µm) per coat depending on the severity of the service environment and the type of surface preparation performed. The relative humidity during application and curing should not exceed 80%. During application of the recommended coating systems allow for proper curing between coats. During spray application, hold gun at the required distance from the surface and at right angles without arching while spraying. Overlap each pass 50% to achieve a uniform finish. Use "Crosshatch" method with 50% overlap on each pass to avoid pinholes and bare areas. On irregular surfaces, coat all edges first. Exercise care to prevent runs and sags. Stripe coating by brush should be used to coat difficult to coat areas, edges, and weld seams prior to the first full coat application. During brush and roller application, any settled pigment on the bottom of the can should be reincorporated back into suspension of the liquid coating, prior to being applied to the surface. Stripe coat material does not need to be thinned. During application of Thurmalox 8704K, ventilate area with high volume of air.

Always utilize and follow good painting practices. Flush spray equipment with Dampney 100 Thinner before use.

Application Equipment

Thurmalox 8704K may be applied by conventional spray, airless spray, brush, or roller. Do not apply Thurmalox 8704K in heavier films than specified since blistering, cracking or solvent entrapment may occur. For conventional spray provide material pot with regulators for fluid and air pressure and oil and moisture traps in supply line. Smaller diameter hose may require increased pressure.

Conventional Spray

Spray gun	DeVilbiss MBC-510
Air Cap	58
Fluid Needle	JGA-402-FX
Fluid tip	FX
Fluid hose*	3/8" ID
Air hose	5/16" ID
Atomizing pressure*	40-50 psi

*Smaller hose diam. or length over 25 ft. may require increased pressure.

Airless Spray:

Spray gun	Graco 205-591, 208-663
Pump	Graco 30:1 or Greater
Fluid tips*	.013 - .017
Fluid hose	3/8" ID with a 1/4" ID whip
Air pressure to pump*	40-60 psi

**Use Reverse-A-Clean® tips for fast, easy clean out. The above recommended air pressures are a guide and should be altered based on the operational condition of the spray pump and ambient climatic conditions. The minimum amount of air pressure should be used that is required to produce a proper spray fan.*

Brush: Use only pure bristle brushes. Apply the coating in sweeping strokes, overlapping the brush strokes. If the surface to be coated is pitted, work the coating into the porosity of the surface without allowing the coating to puddle.

Roller: Use solvent resistant 3/16" - 1/4" (5 - 6 mm) nap roller cover with phenolic core. Do not flood surface with coating. Roll out excess coating on a suitable, screened surface. Then roll out thoroughly, maintaining a continuous wet edge and uniform appearing paint film. Care should be taken during roller application to ensure the required wet film thickness is being achieved. With roller application additional coats may be needed in order to achieve the recommended dry film thickness.

Note: Spray application will result in the finest finish when compared to brush and roller applications.

Dry Time at 70°F (21°C) 50% RH

Thurmalox 8704K will air dry, tack and thumb print free within 45 minutes. Allow 24 - 48 hours at the stated dry time prior to shipping and handling. Institute protective measures when shipping and handling surfaces coated with Thurmalox 8704K. Do not use chains for tie-downs, instead use nylon straps and rubber padding which are less damaging to the coating system. Avoid mechanical abrasion during shipping and handling. As with any newly applied coating system expect some degree of coating damage when shipped and handled that will require touch-up painting prior to placing equipment in service. Higher temperatures will reduce tack free, recoat and shipping times. Higher film thickness, inadequate ventilation and cooler temperatures will require longer cure times and could cause premature failure of the coating system. Cure time will vary depending on air and surface temperature. Allow one hour solvent flash off period before heat curing or placing into service.

Thinning

Product is supplied in a ready to spray consistency; no thinning is necessary.

Cleanup

Thoroughly flush spray equipment and hose immediately after use with Dampney 100 Thinner.

Storage

Store in a cool, dry place with temperatures between 50°F and 100°F (10°C and 38°C). Keep container closed when not in use.

Precautionary Information

WARNING: Flammable liquid and Vapor

Warning: Flammable Liquid and vapor. Keep away from heat, sparks, and flame. Vapors may cause flash fire. Do not breathe vapors or spray mist. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation during mixing and application. Wear an appropriate, properly fitted organic vapor cartridge type respirator (NIOSH approved) during and after application unless air monitoring demonstrates vapor/mist levels are below application limits. Follow respirator manufacturer's directions for respirator use. Wash thoroughly after handling. Wear protective gloves, chemical safety goggles and impervious protective clothing. Use skin cream. In confined spaces it is required to use a positive pressure supplied air-respirator (NIOSH approved). Use explosion-proof lights and electrical equipment. Use only non-sparking tools and equipment. Wear conductive and non-sparking footwear. Make certain that all electrical equipment is grounded. Observe all safety precautions and follow procedures described in OSHA regulations. See SAFETY DATA SHEET (SDS) for complete precautionary and disposal information.

If instructions and warnings cannot be strictly followed,
do not use this product.

FOR INDUSTRIAL USE ONLY.

KEEP OUT OF THE REACH OF CHILDREN

TECHNICAL DATA

Characteristics	Thurmalox 8704K
Generic Type	Silicone
Color	Bright Aluminum
Finish	Semi-gloss
Number of Components	One
Percent Solids b Volume	19 (+/-2%)
Temperature resistance	1000°F (538°C) Continuous
Dry film thickness per coat	1.0 - 2.0 mils (25 - 50 microns)
Wet film thickness per coat	6.0 - 11.0 mils (150 – 275 microns)
Theoretical coverage @ 2.0 mils (50 µm) DFT	152 ft ² /gallon (3.74m ² /liter)
Kit size	1 US Gallon (3.78 liters) and 5 US Gallon (18.9 liters)
Application temperature @ 50% RH (air and surface)	50°F – 120°F (10°C – 49°C)
Drying time @ 50% RH	70°F (21°C)
To touch	45 minutes
To recoat	2 hours
To ship	24-48 hours
Weight per gallon	8.1 lbs. (3.67)
Flash point	-4°F (-20°C)
Pot life	N/A
Shelf life	1 year (when stored in original unopened containers, indoors and out of the weather)
Volatile organic compounds	3.48 lb./gal. (416.9 g./l.)

Warranty Dampney protective coating products are expressly warranted to meet applicable technical and quality specifications. The Technical data contained herein are accurate at the date of issuance but are subjected to change without prior notification. No warranty of current accuracy is hereby given or implied. User must contact Dampney to verify correctness before ordering. Dampney assumes no responsibility for coverage, performance or injuries resulting from handling or use and LIABILITY, IF ANY, SHALL BE LIMITED TO PRODUCT REPLACEMENT. In no event will Dampney be responsible for consequential damages, except insofar as mandated by law. Dampney DISCLAIMS ALL OTHER WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.