



# Dampney Protective Coatings

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## Thurmalox® 217 Series Air Dry Silicone Coatings for Heat Resistant to 450°F Standard and Custom Colors

### Description

Thurmalox 217 series is a single component heat resistant coating based on modified silicone resins and thermally stable pigments. It is formulated to protect surfaces operating to 450°F (232°C). Thurmalox 217 series is intended as a finish coat over Thurmalox 218/219 when it will not be insulated and will be exposed to ultra violet light and the environment. The 217 series topcoat system provides outstanding adhesion, film integrity, color stability, corrosion-weathering, and resists thermal shock throughout its entire temperature range. Thurmalox 217 series coatings are available in a wide range of standard (see Master Color Card) and custom colors.

### Recommended Uses

- Finish coating over Thurmalox 218/219 that will not be insulated

### Features

- Air dries, easy to apply.
- One component system.
- Withstands continuous temperature to 450°F(232°C)
- Outstanding heat and weathering resistance.
- Excellent color stability to 450°F (232°C)
- Outstanding resistance to thermal shock

### Not Recommended For

- Immersion service
- Service above 450°F (232°C)
- Interiors of stacks, breechings and scrubbers

### 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 or other foreign matter.
2. Apply Thurmalox 217 over the Thurmalox 218/219 and under the adjacent insulation and jacketing.

### Mixing

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

### Applications Guidelines -

Surface temperature must be at least 5° F (3° C) above dew point.

### Carbon Steel

Primer: Thurmalox 218	5.0-6.0 mils (125-150 microns)
Topcoat: Thurmalox 219	5.0-6.0 mils (125-150 microns)
Topcoat: Thurmalox 217 Series	2.0-2.5 mils (50-62 microns)
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Total dry film thickness	12.0-14.5 mils (300-362 microns)

### Application Equipment

Conventional spray is the recommended method of application; however Thurmalox 217 series coatings may also be applied by airless spray. Contact Dampney technical service for brush or roller application. Do not apply Thurmalox 217 series coatings in heavier films than specified since blistering may occur.

### Conventional spray:

Spray gun	DeVilbiss MBC 510
Fluid tip	E needle and tip
Air cap	704
Fluid hose*	3/8" ID
Air hose	5/16" ID
Atomizing pressure	40-45 psi
*Smaller hose diameter or length over 25 ft. may require increased pressure.	

### Airless Spray:

Pump	Graco 30:1 ratio
Spray gun	Graco 205-591, 208-663
Fluid tips	163-614, 163-616 (12" fan)
Fluid hose	3/8" ID
Air pressure to pump	100 psi
Use Reverse-A-Clean® tips for fast, easy clean out.	

**Brush:** Use only wooden-handled brush with short China bristles. Do not use synthetic-bristled brushes. Do not flood surface with coating. Brush out thoroughly, maintaining a continuous wet edge and uniform appearing paint film.

**Roller:** Use only wooden-handled roller with phenolic core, and 1/4-3/8" nap. 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.

**Thinning**

Only thin Thurmalox 217 series coatings with Dampney 180 Thinner.

Note: Use of other thinners not approved by Dampney may hinder product performance and void product warranty.

**Dry Time 70°F (21°C) 50% RH**

Thurmalox 217 series coatings will air dry tack and thumb print free within 1-2 hours. Allow 8 - 12 hours dry time between coats. Allow 24 hours dry time prior to shipping and handling. Surfaces coated with Thurmalox 217 series coatings can be handled and shipped as long as shipping and handling procedures for thin filmed systems are followed. Avoid mechanical abrasion during shipping and handling. Allow one hour solvent flash off period before placing into service.

**Cleanup**

Thoroughly flush spray equipment and hoses immediately after use with Dampney 100 Thinner. Dismantle spray equipment and clean parts, brushes and rollers with Dampney 100 Thinner.

**Storage**

Store in cool, dry place with temperature 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.

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 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 applicable 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 use of a positive pressure supplied-air respirator (NIOSH approved) is required. Use explosion-proof lights and electrical equipment. Use only nonsparking tools and equipment. Wear conductive and nonsparking footwear. Make certain all electrical equipment is grounded. Observe all safety precautions and follow procedures described in OSHA regulations. See Material Safety Data Sheet (MSDS) for complete precautionary and disposal information. If instructions and warnings cannot be strictly followed, do not use this product.

**FOR INDUSTRIAL USE ONLY**

**TECHNICAL DATA**

Characteristics	Thurmalox 217 Series Coatings	
Generic Type	Modified Silicone	
Color	See Master Color Card. Also available in custom colors.	
Temperature resistance	Continuous	450°F (232°C)
	Intermittent	500°F (260°C)
Percent (%) Solids by volume	41±3 %	
Dry film thickness per coat	2.0 - 2.5 mils (50 - 62 microns)	
Wet film thickness per coat	4.5 - 5.5 mils (112 - 137 microns)	
Theoretical coverage per gallon	659 mil. sq. ft. (15.7 sq. m./liter @ 25 microns)	
Application temperature @ 50% RH	50°F-120°F (10°C-50°C)	
Drying time @ 50% RH	50°F (10°C)	70°F (21°C)
To touch	2-3 hours	1-2 hours
To recoat	10 hours	8-12hours
To ship	72 hours	24 hours
Weight per gallon	Thurmalox 217 Series	10.0 lb. (4.5 kg)
	Dampney 180 Thinner	7.5 lb. (3.4 kg.)
Flash point	81°F (2 7°C)	
Pot life	N/A	
Shelf life	1 year	
Volatile organic compounds	4.3 lb./gal. (520 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 subject 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.**