



**Dampney**

## Protective Coatings

### **Thurmalox® 260C Air Dry Series VOC Compliant Self Priming Standard and Custom Colors to 500°F Apply Direct to Hot Steel**

#### **Description**

Thurmalox 260C series coatings are VOC compliant, air drying, self-priming, heat and corrosion resistant coatings based on a silicone copolymer resin and a highly effective corrosion inhibitive pigment system. Thurmalox 260C series coatings are designed for application to ambient temperature metal surfaces or directly to hot metal surfaces up to 500°F (260°C) of operating equipment\*. They provide a tough, chemically resistant, durable finish with excellent film integrity and color stability. Thurmalox 260C series coatings protect metal surfaces from corrosion and weathering up to 500°F (260°C), with peaks to 600°F (315°C). Thurmalox 260C series coatings are available in a wide range of standard (see Master Color Card) and custom colors.

\* Thurmalox 264C Aluminum is the only Thurmalox 260C series color which may not be applied to hot surfaces above 200°F (93°C).

#### **Recommended Uses**

Application to surfaces where (1) the benefits of Thurmalox 260C series coatings are needed, and where (2) federal, state and/or local authorities require high temperature coatings to be compliant with reduced VOC (volatile organic compound) emission regulations.

- Refinery and chemical plant equipment
- Furnaces, heaters, heat exchangers
- Columns, fractionators, towers
- Riser lines, lift pipes, ducts
- Boilers, breechings, stacks
- Compressors, turbines, engines, pumps
- Insulated surfaces (under insulation)
- Flare lines and flare stacks
- Boil-out piping (steam-out lines)

#### **Features**

- VOC compliant - 3.2 lb. / gal. (381 g./l.)
- Self priming \*
- Air dries, easily applied
- Heat resistant to 500°F (260°C) with peaks to 600°F (315°C)

- Excellent corrosion, chemical and weather resistance
- Direct application to metal surfaces as hot as 500°F
- Outstanding color stability to 500°F (260°C)
- Hot equipment can be painted without being shut down
- May be applied to hot surfaces during the winter
- Excellent bond to stainless steel without the need to abrasive blast (see Surface Preparation)

\*Thurmalox 260C series black and aluminum pigmented coatings are the only colors that are not self priming. Apply any other Thurmalox 260C series coating as a prime coat.

#### **Not Recommended For**

- Continuous exposure to temperatures above 500°F (260°C)
- Direct application to surfaces having a surface temperature above 500°F (260°C)
- Immersion service
- Interiors of stacks, breechings and scrubbers

#### **Surface Preparation - Carbon Steel**

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. Remove all surface imperfections that will induce premature coating system failure. Chip or scrape off weld splatter. Grind down sharp and rough edges, gouges, and pits.
3. Abrasive blast surface per specification SSPC-SP 10, "Near-White Blast Cleaning", or per NACE Standard No. 2 to a profile depth of 1.5-2.0 mils maximum. Abrasive used in blasting should be selected carefully from materials of mesh size required to produce the desired anchor pattern.
4. If abrasive blasting is not permitted, prepare surface by power tool cleaning per SSPC-SP 11. Use 3M brand "Heavy Duty Roto Peen", type C flap wheel cleaning system mounted on an air-driven

motor. This method will provide a surface equivalent to that provided by commercial blast cleaning per SSPC-SP 6, including the desired surface profile (anchor pattern).

5. Feather out all edges of adjacent painted surfaces after completion of surface preparation operations and prior to application of the first coat of paint.

**Surface Preparation - Stainless Steel**

1. Surfaces must be clean and dry. Remove all oil, grease, soil, drawing and cutting compounds, and other foreign matter by methods outlined in Steel Structures Painting Council Specification SSPC-SP 1, "Solvent Cleaning".
2. DO NOT USE CHLORINATED SOLVENTS ON STAINLESS STEEL SURFACES.
3. For large surface areas, steam clean with an alkaline detergent, follow by a steam or fresh water wash to remove detrimental residues.
4. For small surface areas, solvent wipe with Dampney 170 Thinner, a chloride free solvent, using proper procedures and precautions to minimize hazards.

**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.

**Application Guidelines**

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

**Uninsulated Carbon Steel**

Primer: Thurmalox 260C Series*	2.0 - 2.5 mils (50-62 microns)
Topcoat: Thurmalox 260C Series	2.0 - 2.5 mils (50-62 microns)
<hr/> Total dry film thickness	<hr/> 4.0 - 5.0 mils (100 - 125 microns)

\*Thurmalox 260C series black and aluminum pigmented coatings are the only colors that are not self priming. Apply any of the other 260C series coatings as a prime coat.

**Uninsulated Stainless Steel\***

For optimum protection apply two coats of Thurmalox 260C to a dry film thickness of 2.0-2.5 mils (50-62 microns) per coat. Total recommended dry film thickness is 4.0-5.0 mils (100-125 microns).

\*For application of other Thurmalox 260C series colors to uninsulated stainless steel consult Dampney Technical Service.

**Application Equipment**

Conventional spray is the recommended method of application, however Thurmalox 260C series coatings may also be applied by airless spray, brush or roller. Do not apply Thurmalox 260C series coatings in heavier films than specified since blistering may occur.

**Conventional Spray:**

Spray gun	DeVilbiss JGA402 or equal
Fluid tip	EF
Air cap	704
Fluid hose*	3/8" ID
Air hose	5/16" ID
Atomizing pressure	60 psi

Provide material pot with agitator, regulators for fluid and air pressure, and oil and moisture traps in supply line.

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

**Airless Spray:**

Spray gun	Graco 205-591, 208-663
Fluid tips*	163-610, 163-315
Pump	Graco Bulldog 30:1
Fluid hose	3/8" to 1/2" ID
Air press. to pump	100 psi
Pump operating press.	80-90 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 shank and 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.

**Procedures for Application to Hot Surfaces\***

1. Flush spray equipment with Dampney 100 Thinner before use.
2. Thinning of Thurmalox 260C series coatings is not normally required for spray and roller application. For brush or roller application, use up to 1/2 pint maximum of Dampney 167 Thinner per gallon of coating.
3. Dampney 167 Thinner is formulated especially for application to hot surfaces.
4. WARNING! DO NOT use any other solvents to thin Thurmalox 260C series coatings. A fire hazard may result from use of solvents with low auto

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ignition temperatures when applying Thurmalox 260C series coatings to hot surfaces, and rapid solvent evaporation can cause dry spray and poor film characteristics.

5. Use Dampney 167 Thinner cautiously. Addition of a small amount of thinner will cause a great reduction in coating viscosity. Excessive thinning will cause runs or sags.
6. For conventional spray use adequate air pressure and volume to obtain proper atomization.

\* Note: Thurmalox 264C Aluminum is the only Thurmalox 260C series color which may not be applied to hot surfaces above 200°F.

Be aware that procedures for applying coatings to hot surfaces are somewhat different from those normally used for application to ambient temperature surfaces. The following factors should be taken into consideration:

- a) Heat radiating from the surface and/or strong winds will promote dry spray.
- b) To avoid dry spray, always apply coatings perpendicular to hot surfaces without stretching or reaching.
- c) Perpendicular spraying will also minimize overspray and lap marks due to dry spray and over spray.

On each pass of the spray gun a thinner than normal paint film must be applied to facilitate the heat-accelerated escape of solvents without leaving pinholes or blisters.

### Thinning

Only thin Thurmalox 260C series coatings with Dampney 167 Thinner. Do not thin beyond federal, state and/or local VOC (volatile organic compound) emission regulations. Note: Use of other thinner not approved by Dampney may hinder product performance and void product warranty. Also see Procedures for Application to Hot Surfaces.

### Dry Time at 70°F (21°C) 50% RH

Thurmalox 260C series coatings will air dry tack and thumb print free within 6-8 hours. Allow 10-12 hours dry time between coats. Allow 48 hours dry time prior to shipping and handling if coating is not heat cured. Surfaces coated with Thurmalox 260C series in the air dried state can be handled and shipped prior to a heat cure as long as shipping and handling procedures for

thin filmed systems are followed. Avoid mechanical abrasion during shipping and handling. Higher temperatures will reduce tack free, recoat and shipping times. Allow one hour solvent flash off period before heat curing or placing into service. Optimum film properties require a heat cure of 350° F (177° C) for a 1/2 hour. Equipment protected with the Thurmalox 260C series coatings in the air dried state will heat cure when placed 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 it is required to use a positive pressure supplied-air respirator (NIOSH approved). 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 260C Series Coatings	
Generic Type	Silicone copolymer	
Color	See Master Color Card. Also available in custom colors	
Temperature resistance		
Continuous	500°F (260°C)	
Intermittent	600°F (315°C)	
Percent (%) Solids by volume	52	
Dry film thickness per coat	2.0 - 2.5 mils (50 - 62 microns)	
Wet film thickness per coat	3.5 - 4.0 mils (87 - 100 microns)	
Theoretical coverage per gallon	834 mil. sq. ft. (20 sq. m./liter @ 25 microns)	
Application temperature @ 50% RH	50°F-500°F (10°C-260°C)	
Drying time @ 50% RH		
To touch	50°F (10°C)	70°F (21°C)
To recoat	10-12 hours	6-8 hours
To ship	24 hours	10-12 hours
To ship	72 hours	48 hours
Full cure @ 350°F (177°C)*	30 minutes	
Weight per gallon		
Thurmalox 260C Series	13.5 lb. (6.1 kg.)	
Dampney 167 Thinner	11.2 lb. (5.0 kg.)	
Dampney 100 Thinner	7.2 lb. (3.2 kg.)	
Flash point	134°F (57°C)	
Pot life	N/A	
Shelf life	1 year	
Volatile organic compounds	3.2 lb./gal. (381 g./l.)	

\* See Dry Time section

### 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.**