Thurmalox® 210C Air Dry
VOC Compliant
Silicone Zinc Dust Primer
Heat Resistant to 500°F

Description
Thurmalox 210C Primer is a VOC compliant, heat and corrosion resistant primer formulated from modified silicone resins and zinc dust. Thurmalox 210C Primer provides outstanding corrosion protection for metal surfaces operating at temperatures to 500°F (260°C). Thurmalox 210C is the primer for Thurmalox 200C series, VOC compliant, heat resistant topcoats. The 210C primer/200C series topcoat system has excellent intercoat adhesion and is able to withstand severe thermal shock throughout the entire temperature range.

Recommended Uses
Application to surfaces where (1) the benefits of Thurmalox 210C 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.
- Stacks, Breechings, Boiler Casings
- Refinery Equipment - Heaters, Crackers
- Reformers
- Furnaces, Kilns, Ovens
- Compressors, Turbines, Engines
- Piping, Pumps, Manifolds
- Process Vessels, Heat Exchangers

Features
- VOC compliant - 3.2 lb./gal (381 g./l.)
- Air dries, easy to apply
- Withstands continuous temperature of 500°F (200°C)
- Prevents rusting and streaking of steel during shutdowns
- Easily topcoated with Thurmalox 200C Series heat resistant topcoats
- Excellent intercoat adhesion
- Protects against weathering and corrosion
- Prevents underfilm corrosion attack

Not Recommended For
- Immersion service
- Interiors of stacks, breechings and scrubbers
- Stainless steel

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.
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.
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.

Mixing
Thurmalox 210C Primer is a two package system consisting of a base component and zinc that are mixed together before use. Sift zinc dust slowly into base with continuous mechanical agitation. Mix thoroughly until free of lumps. Pour mixture through 30-mesh screen. If a partial unit is needed, mix by weight 10 parts Base component with 3 parts Zinc Dust component.

Application Guidelines

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

Uninsulated Carbon Steel

Primer: Thurmalox 210C Primer	2.0-2.5 mils (50-62 microns)
Topcoats: Thurmalox 200C Series	2.0-2.5 mils (50-62 microns)
Total dry film thickness	4.0-5.0 mils (100-125 microns)

Application Equipment

Conventional spray is the recommended method of application. However, Thurmalox 210C Primer may also be applied by airless spray, or brush. Do not apply Thurmalox 210C Primer in heavier films than specified since blistering may occur. Do not apply Thurmalox 210C by roller.

Conventional Spray:

Spray gun	DeVilbiss MBC-510
Fluid tip	FX (1.1 mm 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:

Spray gun	Graco 205-591, 208-663
Fluid tips*	163-614, 163-616 (12"fan)
Pump	Graco Bulldog 30:1
Fluid hose	3/8" ID
Air pressure to pump	65-80 psi

* Use Revers-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.

Thinning

Thurmalox 210C is to be used as supplied. If thinning is necessary only thin with Dampney 180 VOC Thinner. Do not thin beyond Federal, State, and/or Local VOC (Volatile Organic Compound) emission regulations. 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 210C Primer will air dry tack and thumb print free within 1-2 hours. Allow 8 hours dry time between coats. Allow 24 hours dry time prior to shipping and handling. Surfaces coated with Thurmalox 210C Primer 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 heat curing or placing into service.

Cleanup

Thoroughly flush spray equipment and hoses immediately after use with Dampney 180 Thinner. Dismantle spray equipment and clean parts, brushes and rollers with Dampney 180 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

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Replaces issue of 0306

TECHNICAL DATA

Characteristics	Thurmalox 210C Primer	
Generic Type	Silicone Zinc Dust	
Color	Dark Gray	
Number of Components	Two	
Temperature resistance		
Continuous	500°F (260°C)	
Percent (%) Solids by volume	30	
Dry film thickness per coat	2.0 - 2.5 mils (50 - 62 microns)	
Wet film thickness per coat	6.8 – 9.0 mils (150 – 200 microns)	
Theoretical coverage per gallon	481 mil. sq. ft. (11.8 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	4-6 hours	1 – 2 hours
To recoat	10-12 hours	8 hours
To ship	72 hours	24 hours
Weight per gallon		
Thurmalox 210C Primer	13.8 lb. (6.3 kg.)	
Dampney 180 Thinner	11.2 lb. (5.2 kg.)	
Flash point	81°F (42°C)	
Pot life	N/A	
Shelf life	1 year	
Volatile organic compounds	3.2 lb./gal. (381 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.**

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