



# Dampney Protective Coatings

## Thurmalox<sup>®</sup> 2900 White Marking / Identification Paint Apply Directly to Hot Steel Formulated for Steel Mills

### Description

Thurmalox 2900 is a water-based, heat resistant marking paint used for production line coding and identification of hot metals. It is nonflammable and is formulated for spray application using automatic marking equipment. Thurmalox 2900 cures rapidly upon application to hot surfaces forming a hard, insoluble, chemically bonded, and highly visible white coating.

### Recommended Uses

Color coding and identification of hot metals, including:

- Slabs, ingots
- Bars, billets, blooms
- Coils, pipe, rods

### Features

- Heat resistant to 2500° F (1371° C)
- Instant cure at 600°F (315°C) or higher
- Withstands repeated thermal cycling
- Excellent adhesion-chemically bonds to surface
- High-visibility white color
- Excellent weather and abrasion resistance
- Forms water-insoluble coating upon curing
- Doesn't peel or flake
- Nonflammable and environmentally safe
- Direct application to hot surfaces

### Surface Preparation

For best results, hot metal surfaces should be descaled prior to application to Thurmalox 2900.

### Mixing

Mix paint thoroughly before pouring to marking system paint tank.

### Application

Prior to first-time use of Thurmalox 2900 in automatic marking equipment remove all old, caked-on deposits and sediment by thoroughly flushing out system with Dampney 825 Cleaning Solution using procedure described in Dampney Bulletin 825. Apply Thurmalox 2900 by spray, using automatic marking equipment.



Apply paint to a dry film thickness of 1-1.5 mils (25-38 microns).

A minimum surface temperature of 600°F (315°C) is required to obtain a rapid and complete cure. Maximum surface temperature at point of application should not exceed 1800°F (982°C).

### Application Equipment

Thurmalox 2900 is acidic (pH: 2.2) and is corrosive to metals such as steel, copper, brass, bronze and aluminum. Type 316 stainless steel, rubber-lined steel, and certain plastics are preferred materials of construction for storage tanks, transfer piping, hoses and wetted surfaces of pumps and spray equipment.

Provide continuous recirculation of paint in storage tank to prevent pigment settling and clogging of filters. Provide a city water connection and flush equipment periodically to remove any residues and to prevent blockage of filters and spray heads. Maintain temperature of storage tank below 100°F (38°C) to prevent evaporation losses and build-up of dried paint residues on tank surfaces.

### Thinning

DO NOT thin with water or flammable solvents. Thurmalox 2900 is ready to use as is.

### Dry Time

Heat is required to bake and fuse the paint film. It dries and cures instantly at a temperature of 600°F (315°C) or higher. Paint must be applied directly to hot surfaces in order to form a smooth, water- and weather-resistant film.

### Cleanup

Periodically clean spray equipment, piping, hoses and storage tank by flushing with clean water, followed by the application of Dampney 825 Cleaning Solution as described in Bulletin 825.

**Storage**

Store in a dry place with temperature no lower than 35°F (2°C) or higher than 100°F (38°C). Store only in polyethylene or stainless steel containers. Keep from freezing.

**Precautionary Information**

Caution! Corrosive. Noncombustible. Contains phosphate-based acid. May cause burns.

Do not get in eyes, on skin, or on clothing. Inhalation is not a hazard unless misted or heated at high temperatures. Avoid breathing of vapor or spray mists which may be present in areas where paint is being

spray applied to hot metals. If use conditions generate airborne mist, provide general and local exhaust ventilation. Where adequate ventilation is not available use vapor/particulate/acid gas respirator (NIOSH approval No. 23-C) to reduce exposure. Wear chemical safety goggles and/or face shield to protect eyes. Use rubber gloves and protective clothing to prevent skin contact.

See Material Safety Data Sheet (MSDS) on this product for complete precautionary information.

**FOR INDUSTRIAL USE ONLY.**

**TECHNICAL DATA**

| <b>Characteristics</b>           | <b>Thurmalox 2900 Series</b>      |
|----------------------------------|-----------------------------------|
| Generic type                     | Water based                       |
| Color                            | White                             |
| Temperature resistance           |                                   |
| Continuous                       | 2500°F (1371°C)                   |
| Intermittent                     | 2500°F (1371°C)                   |
| Percent (%) Solids by volume     | 25                                |
| Dry film thickness per coat      | 1.0-1.5 mils (25-37 microns)      |
| Wet film thickness per coat      | 4.0-6.0 mils (187-250 microns)    |
| Theoretical coverage             | 402 mil sq. ft. per gallon        |
|                                  | 9.6 sq. m. @ 25 microns per liter |
| Application temperature @ 50% RH | 600-1800°F (315-982°C)            |
| Drying Time @ 50% RH             | Instant above 600°F (315°C)       |
| Full cure @600°F (315°C)         | Instant                           |
| Weight per gallon                |                                   |
| Thurmalox 2900                   | 12.0 lb. (5.4 kg)                 |
| Dampney 825 Cleaner              | 8.3 lb. (3.7 kg)                  |
| Flash point                      | Nonflammable                      |
| Pot life                         | N/A                               |
| Shelf life                       | 1 year                            |
| Volatile organic compounds       | None                              |

**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 notice. 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, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.