



SPI COATINGS

PROVEN PERFORMANCE • REAL WORLD SOLUTIONS

OMEGA FIRE – Dual Layer System

**INSULATION
AND
CORROSION
SPECIALISTS**

Technical Data Sheet (11/17/20)

DESCRIPTION

OMEGA FIRE is a two-layer system (Foundation Layer and Top Coat Layer) having a blend of seven different ceramics combined in a water-based, acrylic/hybrid modified silicone formula to create a barrier against extreme flame impingement and heat migration. The coating can withstand direct flame up to 2200°F (1204C) by hardening on the surface at first contact, while continuing to provide the necessary insulation value. The resin blend binds the compounds together and forms a char causing a matrix with the ceramics across the face of the coating, facing the flame.

OMEGA FIRE is designed to stay intact with constant adhesion at extreme temperatures, while remaining flexible. In this way, it can move with the surface, during expansion and contraction, without cracking and falling off as the substrate moves.

REINFORCEMENT—internal fiber matrix formulated in coating film. No external reinforcement needed.

TYPICAL USES

- As fire protection for:
- strategic locations on warfare ships
- engine rooms and galleys on commercial ships
- corner beams, elevator shafts, and stairwells
- walls, ceilings, and boiler rooms
- To control and contain fires in high-rise buildings; prevent the spread and collapse of support structures.
- NYC approval for two hours on support beams
- Additional tests continuing with UL labs
- Over high-rise cladding to prevent fire spread

TESTS AND CERTIFICATIONS

- 1) USDA Approved
- 2) Marine Approvals for Salt Water/Maritime Use (renewals pending):
 - ABS (American Bureau of Shipping)
 - IMO (International Marine Organization)
- 3) Fire Endurance Testing (UL1709/ASTM E119)-pending UL.
- 4) Flame Spread/Smoke (ASTM E84) Class A Fire Rated.

APPLICATION METHODS

OMEGA FIRE can be applied to metal, concrete, masonry, and composite surfaces. The application can be by spray or by trowel.

For specific instructions on surface preparation, mixing and application, please refer to the SPI Application Instruction sheet.

NOTE: A prescribed thickness is required for specific temperature and duration of protection.

MINIMUM SPREAD RATES (mil thickness) / Per Step

23.7 sq. ft/gal = 50 mils dry film thickness	(12sq.ft.)
11.8 sq. ft/gal = 100 mils dry film thickness	(6sq.ft.)
5.9 sq. ft/gal = 200 mils dry film thickness	(3sq.ft.)
4.7 sq. ft/gal = 250 mils dry film thickness	(2.5sq.ft.)
2.4 sq. ft/gal = 500 mils dry film thickness	(1.2sq.ft.)

PHYSICAL DATA

- ◆ Solids: By weight: 74.0% By volume: 74.0%
- ◆ Dry Time: 4-6 hours to tack free. Overcoat and cure window is according to humidity and temperature.
- ◆ Lead and Chromate Free
- ◆ Cures by evaporation (water-based) and affected by temperature and humidity
- ◆ Weight: 8.25 lbs per gallon
- ◆ Vehicle Type: Water-based resin system of acrylic and silicone
- ◆ Shelf Life: Up to 1 year unopened under appropriate storage conditions (See MSDS)
- ◆ VOC Level: 76 grams/liter
- ◆ Viscosity: 90,000 centipoise
- ◆ UV resistant
- ◆ Mold and mildew resistant

NOTE: Reinforcement: Internal fiber matrix formulated in coating film

SAFETY PRECAUTIONS

Do not use this product without first taking all appropriate safety measures to prevent property damage and injuries. These measures may include, without limitation: proper ventilation, use of proper lamps, wearing of protective clothing and masks, tenting, and proper separation of application areas. For more specific safety procedures, please refer to the OMEGA FIRE Safety Data Sheet. **KEEP OUT OF REACH OF CHILDREN.**

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