



OMEGA FIRE (SP2001F)

TECHNICAL DATA SHEET (12/18/07)

DESCRIPTION:

OMEGA FIRE is a unique one-part blend of eight different ceramics combined in a water-based formula to create a barricade against extreme heat migration. This coating can withstand direct flame up to 2000 degrees F. by becoming hard on the surface at first contact, while continuing to provide insulation value. The resin uniquely binds the ceramics together, and forms a char to matrix the ceramics across the surface of the coating facing the flame.

OMEGA FIRE will continue to insulate against extreme heat migration during a fire due to its ceramics, and is designed to stay intact with constant adhesion at extreme temperatures.

This rare combination of extreme temperature, insulation and fire protection offers multiple benefits to protect walls, bulkheads and structures of facilities and equipment prior to and while facing the actual flame of a fire development. Additional protection is afforded against warpage of plates or walls, melting of aluminum, or pre-ignition of building materials before the flame actually contacts the substrates. It provides more time to the control, containment and elimination of any fire.

TYPICAL USES:

- * As fire protection for:
 - strategic locations on warfare ships
 - engine rooms and galleys of commercial ships
 - corner beams, elevator shafts, and stairwells
 - roofs, walls and ceilings, and boiler rooms
- * To control and contain fires in buildings; prevent spread and collapse of support structures.
- * To control and contain spread of a fire on ships and tankers with minimal damage to the hull or support structure.
- * Additional tests continuing (I beam).

APPLICATION METHODS:

OMEGA FIRE can be applied to metal, concrete, masonry and composite surfaces. The application can be by spray using either a Graco Extreme King/Graco Texspray (or equivalent pumping 4 gal/min) with a 0.35-0.45 tip. For specific instructions on surface preparation, mixing and application, please refer to the SPI's application instructions for OMEGA FIRE. **NOTE:** Direct attention to thickness required for specific temperature and duration protection.

PHYSICAL DATA:

- * Solids: By weight 61% / by volume 74%
- * Film Thickness:
3-hour protection = 500 mils wet/400 mils dry

- * Dry Time: Four hours to touch each coat. Overcoat window is twelve hours or longer according to humidity and warmth in the atmosphere
- * Lead and chromate free
- * Cures by evaporation (water-based)
- * Cures in 21 days @ 70 degrees
- * Weight: 9.5 lbs. per gallon
- * Vehicle Type: Water-based resin system of acrylic and silicone
- * Shelf Life: up to 3 years unopened under appropriate storage conditions (see MSDS)
- * VOC Level: 76 grams/liter
- * Viscosity: 90,000 centipoise
- * UV resistant
- * Mold and Mildew resistant

TESTS AND CERTIFICATIONS:

- 1) USDA approved
- 2) Marine approvals for salt water/maritime use:
 - *US Coast Guard
 - *ABS (American Bureau of Shipping)
 - *IMO (International Maritime Organization)
- 3) Fire Endurance Test (UL 1709/ASTM E119)
- 4) Flame Spread/Smoke (ASTM E84) Class A rated

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.

KEEP OUT OF REACH OF CHILDREN.

For more specific safety procedures, please refer to the OMEGA FIRE Material Safety Data Sheet.

LIMITATION OF LIABILITY: The information contained in this data sheet is based upon tests that we believe to be accurate and is intended for guidance only. All recommendations or suggestions relating to the use of the products made by SPI, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge is reliable. The products and information are designed for users having the requisite knowledge and industrial skills, and the end-user has the responsibility to determine the suitability of the product for its intended use.

SPI has no control over either the quality of condition of the substrate, or the many factors affecting the use and application of the product. Therefore, SPI does not accept any liability arising from loss, injury, or damage resulting from such use or the contents of this data sheet (unless there are written agreements stating otherwise).

The information contained in this data sheet is subject to modification as a result of practical experience and continuous product development. This data sheet replaces and annuls all previous issues and the user has the responsibility to ensure that this sheet is current prior to using the product.