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INNOVA-FR 102 WE®

(WATERBORNE BASED EPOXY FIRE PROTECTIVE COATING)

Innova-FR 102WE® is a newly developed and unique two-component, waterbone based, epoxy flame retardant – intumescent coating based on proprietary and patented, non-halogenated phosphate technology. When exposed to a fire condition, **Innova-FR 102WE®** will expand to form a robust, dense char insulation layer, rising within 30 seconds to encapsulate the substrate from the effects of rapid flame spread and smoke evolution. The flame retardant active ingredients within **Innova-FR®** products are not water soluble and will not leach out over time.

INNOVA-FR 102 WE® - FEATURES & ADVANTAGES

- Strong adhesion to metal and non-metal surfaces alike without need for primer treatment
- Very low flame spread coating for marine purposes as well as in general construction
- Excellent abrasion and impact resistance and early results reporting very good flexibility
- Non-porous and corrosion resistant, designed for exterior use without need for a top coat
- User friendly orientated product with extended pot life and water wash clean up after use
- Negligible smoke evolved as decomposition by-products are contained within char structure

TENTATIVE SPECIFICATIONS

• % Solids (standard)	78% (75% on component A, 90% on component B)
• Mix Ratio (A : B)	100 : 25
• Mix Viscosity @ 25ºC	120,000 cps
• Working life @ 25ºC	3 hours
• Tack free set time @ 25ºC	12 hours
• Full cure @ 25º C	24 hours

PROPERTY & PERFORMANCE DATA

Since the Innova-FR 102 WE® is a water based epoxy coating, there is some latitude for the applicator to formulate a finished product based on viscosity considerations, cure time, and the water content (±5% in both Parts A & B) of the cured coating derivative.

Part A of the standard product (comprising the epoxy resin, flame retardants, and performance additives) contains 75% solids with 25% remaining as water. However, the solids content may be as low as 70% or as high as 80% with the balance being the water carrier. As a result, the viscosity of Part A is

as low as 150,000 cps or as high as 200,000 cps. The polyamide and mixed diamine curing agent mixture of Part B (standard being 90% solids) may also vary from 85% to 95% as solids with the balance being water. The viscosity of B only varies slightly (20,000-25,000 cps). The finished product is easily pigmented.

PROPERTY INFORMATION

Color:	Light pink	Appearance:	Semi gloss smooth finish
Specific gravity:	1.20 (dry)	Weight per gallon:	9 lbs.

PERFORMANCE DATA

Thermal expansion of foam:	**>30 times thickness of coating**
UL-1709 (oil hydrocarbon flame test):	**Pass, 25 minute rating on unprimed ¼ ″ steel plate**
ASTM E-84 Tunnel (4 ft. modified test):	**Class A on flame spread and smoke obscuration**

Supplemental Application Information

Surface Preparation & Mixing Procedure: Low speed mixing should be applied to Component A for several minutes to ensure uniformity. Gradually add Part B and mix thoroughly for several more minutes from the bottom to the top of the container, just prior to application. Continual mixing thereafter is not required, but caution should be taken to avoid aerating the material. Pot life of the mixture is three hours. The substrate surface should be prepared by removing any and all grit and contaminants such as loose scale, primers, solvents, oils, or grease that may interfere with the adhesion of the flame retardant coating.

Application Procedure: Do not apply when the air temperature is below 40ºF (5º) or when the relative humidity exceeds 85% and the air temperature is higher than 95ºF (35ºC). Overlap each pass by approximately 30%. For spray equipment, use a quality conventional airless paint sprayer, having a nominal pressure of 2400 psi. The hose is usually ¼ inch in diameter and upwards to 50 feet. A standard coating thickness, depending on substrate and its surface, would be approximately 10 mils wet (8 mils dry) for an estimated coverage of 120 ft².

Post 9/11 evaluations of fireproofing materials lead to the conclusion that adhesion, weathering, and impact resistance are key to the selection of a superior FR coating as in INNOVA-FR 102 WE®

Note: Innova-FR is registered trade mark of Selective Technologies, Inc. MJL Industrial, Inc. is the International Marketing Representative for Innova-FR.

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