




Milenium
Solutions



MS-Fireshield by Milenium Solutions is a single component waterborne elastomeric intumescent fire-resistant barrier coating that will withstand direct flame contact for up to 2 hours fire protection. It does not emit continuous smoke with E84 testing yielding 0=flame spread and 20=smoke during flame exposure.

MS-Fireshield also provides outstanding UV stability and rated by the Cool Roof Rating Council at 84% reflectivity with an SRI 106.

| | | | |
|--|--------------------------|----------------|------------------|
|  | | <u>Initial</u> | <u>Weathered</u> |
| | Solar Reflectance | 0.84 | 0.77 |
| | Thermal Emittance | 0.90 | 0.88 |
| | Rated Product ID Number | 0001 | |
| | CRRCC Licensee ID Number | 1212 | |
| Classification | Production Line | | |
| <small>Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary.</small> | | | |
| <small>Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.</small> | | | |

This material may be used directly on foam, wood, textiles, masonry, wallboard, metal, etc. It does not normally require the use of primers on most substrates to obtain proper adhesion. Material must be stirred thoroughly prior to use. All surfaces must be clean and free of contaminants. Application temperature ranges from 50°F to 110°F. Tack free time is 30 min at 75°F with full cure in 24 hours. Re-coat time is normally 20-30min. Functional operating temperature ranges from -40°F to 1800°F. Application film thickness dependent on barrier requirement but typically 20-30 mils per coat. Subsequent coats may be applied after the first coat is fully dry. Fire rating is 1 hr rating per 60 mils. A 2 hr rating would be 120 mils. Coverage is 100 sq.ft./gal.

MS-FIRESHIELD TECHNICAL DATA SHEET

| Characteristics | Test Results | Test Method |
|-----------------------------|--------------------------------|---------------|
| Fire Rating | Class A 0-Flame 20-Smoke | ASTM E84 |
| Fire Rating | <3 hrs. | ASTME 119 |
| Hardness | 45-50 | Shore D |
| Bond Strength | 50 psi | ASTMD 952-90 |
| Compressive Strength | 300 psi | ASTMD 695-91 |
| Elongation | 100-150% | ASTMD 882 |
| Abrasion Resistance | 0 grams gloss | ASTMD 1044-90 |
| Impact | 0.8 lbs / in of notch | ASTMD 256-90b |
| % Solids by weight (liquid) | 50-65% | |
| Spread Rate | 100 sqft/gal | |
| VOC | Non-Detect | |

Adhesion Results of Typical Substrates per ASTM D 4541 Elcometer

| | | |
|-----------------|-----------|---|
| Concrete-primed | >300 psi | Concrete cohesive Failure:excellent Bonding |
| Steel-primed | >1000 psi | Excellent Bonding |
| Wood-primed | >300 psi | Wood Failure; Excellent Bonding |