



SHIELD INDUSTRIES, INC.

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FORCEFIELD® FIREGUARD E-84® APPLIED TO ORIENTED STRAND BOARD

CSI Section:

09 96 46 Intumescent Paints

1.0 SCOPE OF LISTING

1.1 Compliance with the following Standards:

- ASTM E84-12c – Standard Test Method for Surface Burning Characteristics of Building Materials
- ASTM E2768-11, Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials (30-minute Tunnel Test)

1.2 Properties assessed:

- Surface Burning Characteristics

2.0 FINDINGS

2.1 Product Information: ForceField® FireGuard E-84® Intumescent Coating is a water-based liquid, packaged in 5-gallon (18.9 L) pails, 55-gallon (208 L) drums, and totes. The coating has a shelf life of 14 months from the time of purchase when stored in unopened original containers between 33°F and 100°F (1°C and 38°C). Shipping weight is approximately 12 lbs. per gallon (1.44 kg/l). The coating is white in color.

2.2 Surface Burning Characteristics: ForceField® FireGuard E-84® Intumescent Coating, when applied at a wet film thickness of 45 mils (24-mil dry film thickness) to Oriented Strand Board, tested in accordance with ASTM E84/ASTM E2768 extended 30-minute duration, exhibited a flame spread index of 25 or less. The flame front did not progress more than 10.5 ft. (3.2 m) beyond the centerline of the burners during the 30-minute exposure.

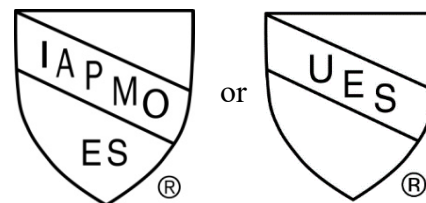
3.0 DESIGN AND INSTALLATION

3.1 General: ForceField® FireGuard E-84® Intumescent Coating shall be applied in accordance with this listing and the ForceField® FireGuard E-84® Intumescent Coating

published instructions, by applicators qualified by Shield Industries, Inc. Copies of this listing and the Shield Industries, Inc.'s instructions shall be available at the jobsite. Where conflicts occur, the more restrictive shall govern. Before and during coating application, substrate surfaces shall be dry, clean, and free from loose debris, dirt, grease, oil, and all prior coating materials such as paint, stains, and sealers. The substrate shall not have, nor have been exposed to, treatments, chemicals, coatings, etc. A 0.5-inch (12.7 mm) diameter electric or air driven drill with a slotted paddle mixer (300 rpm under load) is required to mix the ForceField® FireGuard E-84® Intumescent Coating mix material for a minimum of five minutes to achieve the necessary texture required. These products shall not be thinned or tinted. During application, the coating shall be a minimum of 70°F (21°C) and a maximum of 100°F (38°C), the substrate surface shall be a minimum of 50 °F (10°C) and a maximum of 125°F (52°C), and the ambient temperature shall be a minimum of 50°F (10°C) and a maximum of 110°F (43°C). Also, the substrate surface temperature should be a minimum of 5°F (3°C) above the dew point. The ambient humidity shall be a minimum of 0 percent and a maximum of 85 percent. ForceField® FireGuard E-84® Intumescent Coating shall be protected from exposure to weather and protected from freezing.

4.0 IDENTIFICATION

ForceField® FireGuard E-84® Intumescent Coating identified by the Shield Industries, Inc.'s name and trademark, product name, and listing report number (UEL-5013). Either of the IAPMO Uniform Evaluation Service Marks of Conformity may also be used as shown below:



IAPMO UEL-5013

For additional information about this evaluation report, please visit www.uniform-es.org or email us at info@uniform-es.org

The product described in this Uniform Evaluation Service (UES) Report has been evaluated as an alternative material, design or method of construction in order to satisfy and comply with the intent of the provisions of the code, as noted in this report, and for at least equivalence to that prescribed in the code in quality, strength, effectiveness, fire resistance, durability and safety, as applicable, in accordance with IBC Section 104.11. This report shall only be reproduced in its entirety.

