

# **FIRE** Retardants Inc.<sup>TM</sup>

*The Decision You Make May Save A Life!*

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**Visit Our Web Site at [www.fireretardantsinc.com](http://www.fireretardantsinc.com)**

## **BURN BARRIER NO. 50-50** **A Water Base, Flat Latex**

## **Intumescent Fire Retardant Paint For Polyurethane Foam**

### **DESCRIPTION:**

BURN BARRIER 50-50 Foam Kote is a VOC compliant, water base intumescent fire retardant paint, manufactured expressly for the thermal protection of polyurethane foam insulation. It dries quickly to a flat finish, having the appearance of a conventional flat paint. In the presence of heat or flame, the coating puffs up (intumesces) and forms a thick sponge-like cellular foam layer. This foam layer insulates the foam substrate from flames, reduces the penetration of heat, delays heat transfer and burn through and reduces the surface flame spread characteristics of the foam. These combined characteristics prolong the structural integrity of the foam composite assembly for both, 2 & 1/2 pound density sprayed polyurethane foams.

### **RECOMMENDED USES:**

This product is designed for use on interior polyurethane foam surfaces where it is either necessary or desirous to reduce the burn through and flame spread rating characteristics of the foam.

### **USED BY:**

Schools, Colleges, Nursing Homes, Child Care Centers, Hospitals, Penal Institutions, Apartments, Hotels, Factories, Warehouses, Retail Stores, Restaurants, Utilities, Railroad and other Transportation Companies, Oil and Chemical Installations, Military Installations, and other facilities where fire retardant coatings are required.

### **PERFORMANCE INFORMATION:**

Attic & Crawl Space Test Results: (ICCES Accepted Alternate Test Protocol for Ignition Barrier)

- For ½ pound foam; exceeds current "Flame Out the Front" and "Burn Through" criteria accepted by the International Code Council (ICC), and exceeds currently proposed new criteria.
- For 2 pound polyurethane foam; exceeds current "Flame out the Front" and "Burn Through" criteria accepted by the ICC, and exceeds currently proposed Flame Out the Front criteria. See page 3.

\* ICC is a membership association dedicated to building safety and fire prevention; it develops the codes used to construct residential and commercial buildings, including homes and schools. Most U.S. cities, counties and states that adopt codes choose the I-Codes developed by the ICC.

ASTM E-84 Surface Flame Spread Results:

- NFPA Established Classification, Class A surface flame spread index of 20, when tested on 2 pound, Class II Polyurethane Foam in ASTM E-84 test.
- NFPA Established Classification, Class "A" when tested in accordance with UL-723 (ASTM E-84, UBC 8-1, NFPA-255) and CAN/ULC-S102 on cement board.

### **CHARACTERISTICS:**

**Finish** . . . . . Flat, 5 units max. @ 60°

**Color** . . . . . White, Off-White and 13 standard pastel shades

**Tinting** . . . . . Can be tinted up to 2 fl. oz. of Universal Tint. Check colorant for compatibility.

**Spreading Rate** . . . . . 100 sq. ft./gal. (2.45 m<sup>2</sup>/L) applied in two coats of 200 sq.ft./gal each coat

**Coverage** . . . . . 770 sq.ft./gal @1 mil dry

**V.O.C. Less Than** . . . . . 0.25 lbs./gal. (30 g/L)

**Volume Solids** . . . . . 48% ± 2

**Weight Solids** . . . . . 57% ± 2

### **Drying Time @**

**77°F & 50% RH:** To touch 1-2 hours  
To recoat 2 to 4 hours

**Type of Cure** . . . . . Coalescence

**Flash Point** . . . . . None

**Reducer/Cleaner** . . . . . Water

**Shelf Life** . . . . . 6 months (unopened)

**Packaging** . . . . . 1 & 5 gal. containers  
weight/gal. 10.9 ± 0.2 lbs.

**Shipping weight** . . . . . 4 gals - 48 lbs.  
5 gals - 58 lbs.

**Application** . . . . . Brush, roller,  
conventional and airless spray

### **PRECAUTIONS:**

Adequate ventilation must be provided during and after application until the coating has dried. Avoid breathing vapors or spray mist. Close container after use. **DO NOT TAKE INTERNALLY.**

**Read MSDS before opening containers.**

**KEEP OUT OF REACH OF CHILDREN**

### **SURFACE PREPARATION:**

Can be applied directly to fully cured polyurethane foam surfaces. If the surface is cut or shaved, exposing the foam cells, we recommend a coat of BURN BARRIER 3003 water base primer, prior to the application of the BURN BARRIER 50-50 Foam Kote. All surface preparation should be carried out in accordance with good painting practices. Remove all loose, peeling or powdery existing paint from the surface. All dirt, grease, oil, wax, and other foreign matter **MUST** be removed with a detergent, rinse surface thoroughly with clear water, and allow to dry.

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**APPLICATION:**

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BURN BARRIER 50-50 Foam Kote can be applied by brush, roller, airless or conventional heavy-duty spray equipment. Stir thoroughly and apply at approximately 200 square feet per gallon per coat, two coats are necessary to achieve the performance characteristics referenced. If thinning is required, use WATER only. Do not exceed ½ pint per gallon. Do not apply in temperatures below 50°F (10°C).

**APPLICATION EQUIPMENT:**

**Airless Spray**

Fluid Pressure..... 2500 psi  
Strainer..... 100 Mesh  
Fluid Hose..... ¼" diameter  
Tip..... .017 - .021  
Reduction..... Up to 7%

**Conventional Spray**

Air Supply . 12 CFM, 50 psi at nozzle,  
fluid 15-20 psi  
Gun..... Graco 217-800 to 217-816  
Type..... External Mix  
Reduction..... Up to 7%

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**FIRE HAZARD CLASSIFICATION**

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Attic & Crawl Space Test Results: (ICCES Accepted Alternate Test Protocol For IGNITION BARRIER)

Polyurethane foam insulated assemblies coated with

For ½ pound foam

Flame out the Front – 2.6 minutes versus fiberglass insulated assembly of 1.9 minutes.  
Burn Through 16.8 minutes versus fiberglass insulated assembly of 9.7 minutes.

And

Flame out the Front – 6.1 minutes versus plywood covered polyurethane wall and fiberglass insulated ceiling assembly of 3.3 minutes.

Burn Through > 50 minutes versus plywood covered polyurethane wall and fiberglass insulated ceiling assembly of 25.1 minutes.

For 2 pound foam

Flame out the front – 3.4 minutes versus fiberglass insulated assembly of 1.9 minutes.  
Burn Through 24.6 minutes versus fiberglass insulated assembly of 9.7 minutes.

And

Flame out the front – 7.5 minutes versus plywood covered polyurethane wall and fiberglass insulated ceiling assembly of 4.2 minutes.

Complete Reports supporting above data, available upon request.

As we cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, may be used, we accept no responsibility for results obtained by the application of this information or the safety or suitability of our products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each such product or product combination for their own purposes. We sell the products without warranty or guarantee, and buyers and users assume all responsibility and liability for loss or damage from the handling and use of our products, whether used alone or in combination with other products.