



BRADFORD INDUSTRIES, INC.
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PyroBlok™ 113ACR-(H) **WATERBASED ACRYLIC FIRE RETARDANT COATING**

DESCRIPTION

PyroBlok™ 113ACR-(H) is a water-based, low smoke, low heat release intumescent fire retardant coating for use on metals, wood, masonry and fiberglass. It is a white, fast drying, free-flowing water-based polymeric emulsion that can be tinted. Adhesion is excellent to most substrates providing outstanding durability, dirt resistance, moisture and fire protection.

BENEFITS

PyroBlok™ 113ACR-(H) is an effective, easy to apply coating that provides outstanding flame and fire retardancy in a tough durable water-resistant film.

Low thickness (2 mil–20 mils) application provides outstanding performance

May be colored by a wide range of tinting pigments to provide many shades or colors allowing for use as a finish coating. Low toxicity formulation allows for safe use in many environments.

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PASSIVE FIRE PROTECTION MATERIALS

PyroBlok™ 113ACR-(H)

WATERBASED ACRYLIC FIRE RETARDANT COATING

TYPICAL DATA

Appearance white polymeric emulsion
Viscosity 3 – 5,000 cps.
Density 10.89 lbs/gal.
Specific Gravity 1.3 gram/ml
Percent Solids 67%
PH 7.0 – 7.5
Shelf Life 1 year from date of shipment
Fire retardancy
ASTM E-84 PASS
ASTM E-162 PASS
ASTM E-662 PASS
This data is not for specification use; specifications are available on request.

APPLICATION

Most coating application techniques can be used to apply PyroBlok™ 113ACR-(H) but surface preparation and condition are important to insure good adhesion. All surfaces must be clean, dry and free of dirt, grease or oils prior to application. Application should be made in a well-ventilated area and the ambient temperature must be above 50°F with humidity above 30%. Spraying, Brush/roller: PyroBlok™ 113ACR-(H) can be used as delivered if applied by brush or roller or low-pressure spray. This material is an air-dry material and will dry to the touch in 30-60 minutes at 70°F and 50% relative humidity. Drying times are dependent on the ambient conditions resulting in longer or shorter drying times (higher temperature or lower humidity will shorten the dry time; lower temperatures or higher humidity will lengthen the drying time.) Optimum product performance is achieved with full product cure, which will take 7-10 days. Higher temperatures will shorten the cure time considerably. Oven curing at 200°F will result in full cure in 30 minutes.

PRODUCT AVAILABILITY

PYROBLOK 113ACR-(H) is available in:

Container Weight Coverage at 10 mil dry-thickness

1 gallon can 11 lbs. 107 sq feet 5 gallon pails 44 lbs. 535 sq feet 55 gallon drums 575 lbs. 5885 sq feet

LIMITED WARRANTY/LIMITATION OF LIABILITY

Seller warrants that its products will meet the specifications that it sets for them. Seller's responsibility under this warranty will be limited solely to replacing the products which prove defective, provided that Buyer gives Seller prompt notice in writing of said defect and satisfactory proof thereof. Product may be returned to Seller only after written authorization has been obtained from Seller. The foregoing warranty is in lieu of all other warranties, whether oral, written, express, implied or statutory. IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WILL NOT APPLY. Technical or other advice is furnished by us solely as an accommodation and shall not increase the scope of our responsibilities or liability. Seller's warranty obligations and Buyer's remedies hereunder are solely as stated herein; replacing the product, including but not limited to, its removal and application, or for other incidental or consequential damages. This product is sold on the condition that each user of the material makes their own evaluation to determine the material's suitability for their own particular use.

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PASSIVE FIRE PROTECTION MATERIALS



BRADFORD INDUSTRIES, INC.
SEATING PEOPLE. LIVING PEOPLE. POWERING THEM.

PYROBLOK™ EPOXY BASED LIQUID 333C-(H)

DESCRIPTION

PyroBlok™ 333C-(H) is a two-part, epoxy-based low viscosity, intumescent fire resistive coating that has a creamy white color. The material is very durable, even at low temperatures and will adhere well to most substrates. The product may be used as a stand-alone coating on a large number of substrates to produce a refractory/intumescent/fire barrier, or it may be used to saturate or surface coat woven or non-woven technical or fiberglass fabric to produce a fire-blocking blanket. In addition, composites made up of the fire blanket, with lightweight insulation in between, offer a wide variety of uses as a waterproof, fire retardant, insulation material.

Intumescence is a char barrier that forms when a substance is subjected to fire. PyroBlok™ 333C-(H) swells to form such a char barrier, thus protecting the substrate from extreme conductive heat. Even when this char barrier is scraped off, PYROBLOK 333C-(H) will continue to intumesce again and again without apparent damage to the substrate. This phenomenon occurs on coatings of as thin as one mil; however, 5 to 20 mil coatings would continue to intumesce for a longer period.

The secondary and unique element of PyroBlok™ is the residual layer of refractory material deposited on the substrate that reflects radiant heat that otherwise penetrates other intumescents.

Once mixed and dried PYROBLOK 333C-(H) is non-hazardous. It has 100% solids and therefore, there is no loss of product due to evaporation and is odor free. Combusted products generally contain no acid, irritants or other substances usually considered toxic. During combustion some carbon dioxide and carbon monoxide in small quantities may be produced. The products generally contain some organic phosphorous compounds, which upon decomposition will produce phosphates that do not leach once the product is cured.

APPLICATION

PYROBLOK 333C-(H) is supplied as an A-B 2-Pack system that requires mixing. Depending on the required hardness or softness of the coating, different catalysts and ratios apply. Mixing instructions are furnished with each shipment. Surfaces must be dry, free of oil and grease and some substrates may require roughing the surface. Under normal ambient temperatures, the gel time (dry to touch) is approximately 90 minutes. Elevated temperatures will reduce the gel time proportionally. In general, the total curing time (where a solid matrix is formed) takes about one week.

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PASSIVE FIRE PROTECTION MATERIALS

As a coating, and considering the gel time of this two-part system, application is most effective when a static head sprayer is used; thus eliminating the danger of damage to the spraying equipment. Once finished, it is imperative that equipment be cleaned immediately with solvents such as Xylene, Acetone or MEK

Reading the Material Safety Data Sheet for this product before application is suggested. Fabrics already coated, such as PyroTarp™, are easier to handle and may be applied through adhesion. The material may be nailed, screwed, stapled, drilled or tapped without crazing or cracking.

KEY FUNCTIONAL POINTS

PYROBLOK 333C-(H)h is a thermal flame barrier that is waterproof, intumescent, flexible, solvent resistant, impact resistant and looks attractive. It is printable and can be embossed. It is most effective at 5 or 20 mil thickness but even a coating with as little as one mil will provide some fire protection.

TECHNICAL DATA

These numbers are general, not specific to a particular batch and therefore there may be slight variations.

Density Composite 11.18

Spec. Gravity Composite 1.30 g/ml

Solids 100%

Viscosity, Brookfield 5000 cps

Room temperature Cure time One week

Shelf Life Best when used immediately; storage of one year or longer.

TEST RESULTS Substrate fiberglass

ASTM E-84 Pass ASTM E-119 Pass

Cone calorimeter

ASTM E-661 Pass ASTM E-162 Pass

Toxicity test No Toxics

Sound Attenuation Substrate Dependant

CONTAINER WEIGHT Drum weight Resin Blend 570 lbs Drum weight Catalyst 450 lbs

Pail Weight Resin Blend 40 lbs Pail weight Catalyst 40 lbs

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Seller's responsibility under this warranty will be limited solely to replacing the products which prove defective, provided that Buyer gives Seller prompt notice in writing of said defect and satisfactory proof thereof. Product may be returned to Seller only after written authorization has been obtained from Seller. The foregoing warranty is in lieu of all other warranties, whether oral, written, express, implied or statutory. IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WILL NOT APPLY. Technical or other advice is furnished by us solely as an accommodation and shall not increase the scope of our responsibilities or liability. Seller's warranty obligations and Buyer's remedies hereunder are solely as stated herein; replacing the product, including but not limited to, its removal and application, or for other incidental or consequential damages. This product is sold on the condition that each user of the material makes their own evaluation to determine the material's suitability for their own particular use.

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