

## Product Description

Bayblock FR has exceptional adhesion to polyurethane foam and a assortment of other substrates. Its proprietary formulation incorporates high solids elastomeric acrylic resins, reinforcing laminar pigments and non-migrating fire retardants. This formulation produces a seamless, flexible and durable membrane with exceptional weatherability, UV protection and fire resistance. Bayblock FR acts as a "breathing" membrane allowing trapped moisture vapor to pass through the film while remaining impervious to exterior mass water penetration. The tough film provides good resistance to mechanical damage and chemical attack.

## Unique Properties

Bayblock FR is a technologically advanced, high solids, fire retardant, thixotropic, acrylic elastomeric coating uniquely formulated for the protection of spray polyurethane foam insulation and other construction surfaces. Bayblock FR maintains the characteristics of standard Bayblock I but possesses higher fire retardancy, allowing the material to be applied on polyurethane foam roofs with unlimited slope.

## Recommended Uses

The thixotropic nature of Bayblock FR permits uniform high-build coverage on rough, textured or vertical surfaces, without pinholing or sagging. It has excellent adhesion to a variety of other substrates, such as asphalt, primed wood, primed metal, concrete and masonry.

## General Application Instructions

Bayblock FR may be applied by medium nap rollers, brushes, or by conventional or airless spray equipment. Airless spray application is most efficient whereas rolling or brushing may be used for touchup, flashing and edge terminations or to fill voids, pinholes, holidays or

cracks. CONTACT BAYSYSTEMS TECHNICAL SERVICE PERSONNEL FOR SPECIFIC RECOMMENDATIONS, PRICING AND AVAILABILITY OF SPRAY AND AUXILIARY EQUIPMENT.

Apply Bayblock FR only to clean, dry, sound surfaces, free of loose particles or other foreign matter. A primer may be required subject to type and/or condition of the substrate. Consult BaySystems Technical Service Personnel for specific primer recommendations and substrate preparation procedures. Apply only to roofs that have adequate positive drainage (i.e. a minimum slope of 1/8 inch per foot).

Some separation may occur during shipment and storage, therefore the contents of each container should be thoroughly power mixed for ten (10) to fifteen (15) minutes before application. Thinning is not recommended. It is recommended that Bayblock FR be sprayed in multiple coats applied in multi-directional (north-south, east-west) passes to insure uniform film build and to avoid pinholing. Backrolling sprayed material may be necessary to fill pinholes in substrate. Final cured dry film thickness must be free of voids, pinholes, holidays, cracks or blisters. COATING APPLICATION SHOULD BE SUSPENDED IMMEDIATELY AND BAYSYSTEMS TECHNICAL SERVICE PERSONNEL CONTACTED IF THE RESULTS BEING OBTAINED ARE LESS THAN DESIRABLE.

Apply three (3) or more coats of Bayblock FR at the rate of one (1) gallon per 100 square feet per coat. As a visual aid in the application of multiple coats, alternate coats may be tinted a light to medium gray. Tinting is generally necessary during application at temperatures between 50°F and 70°F to accelerate the curing process. Minimum dry film thickness shall be 25 mils. Accentuated surface profiles, which increase total surface area, will require a proportionate increase in the amount of Bayblock FR to satisfy specified. (continued)

## Typical Physical Properties

Dry Properties	Test Method	Value
Tensile Strength:	ASTM D 2370	250 psi ± 25
Elongation:	ASTM D 2370	150% ± 5
Impact Resistance:	ASTM D 2794	Exceeds 160 in./lb.
Adhesion:	ASTM C 794-D 903	4.15 pli ± 0.2 (peel strength on foam)
Hardness (Shore A):	ASTM D 2240	45
Permeability:	ASTM D 1653A	30 US Perms ± 3
Tear Resistance:	ASTM D 624	88 lbf/in ± 3
Service Temperature:		-40° to 200° F
Fire Rating:	UL 790 Class A	Combustible Deck Class B
Dirt Pickup Resisiatnce:		99%
Solids by Weight:	ASTM D 1644	68% ± 1
Solids by Volume	ASTM D 2697	60% ± 2
Theoretical Coverage DFT:	9-10 dry mills	100 s.f./gal.
Weight per gallon:		12.0 lbs.
Viscosity (cps):	ASTM D 562	105-115 KU ± 2 (Krebs Units)
Average Solar Reflectivity (White):	ASTM E 903	80-82%
Average Solar Emittance (White):	ASTM E 903	0.90

## Wet Physical Characteristics

Flash Point:	ASTM D 93 No flash to boiling
Shelf Life:	12 month if properly stored
Clean Up:	Water
Thinner:	Not Recommended

Note: Adhesion should not be tested within one hour of application

## Product Reactivity

Dry to Touch:	4 hours
Tack Free Time:	12 hours
Recoat:	12-24 hours

Atlas Carbon Arc – ASTM 822 G 23  
In excess of 1,000 hrs. with no threatening signs of deterioration.  
Low temperature flexibility after accelerated weathering – Pass

# Bayblock™ I

## General Application Instructions (continued)

minimum dry mil thickness. If required, roofing granules may be broadcast into coating application at the rate of 35-40 pounds per 100 square feet. No foot traffic shall be permitted on the coated surface for 72 hours after application.

## Limitations and Precautions

Bayblock FR is a water-base elastomeric acrylic coating, which will freeze and become unusable at temperatures below 32°F. PROTECT FROM FREEZING DURING SHIPMENT AND STORAGE. Do not store material at temperatures below 50°F. Do not apply Bayblock FR when ambient air and substrate temperatures fall below 50°F or when there is a possibility of temperature dropping below 32°F within a 24-hour period after application.

Do not apply over wet substrates or when inclement weather is imminent. Total cure of Bayblock FR requires complete evaporation of water. Cool temperatures and high humidity retard cure. Furthermore, all white or light colored coatings can cause a premature artificial dew zone during the curing process under certain climatic conditions. This is generated as the water in the coating evaporates, cooling the white surface and attracting moisture in the form of dew. Therefore, do not apply if climatic conditions prevent complete cure before rain, dew, or freezing temperatures.

Bayblock FR is not a vapor barrier coating and is not recommended for use over most cold storage installations. Where a vapor barrier is required, contact BaySystems Technical Service Personnel for proper selection and installation procedures.

For further information on safety requirements, refer to OSHA guidelines and Bayblock FR Material Safety Data Sheets.

## General Safety, Toxicity, Health Data

Material Safety Data Sheets are available on this coating material. Any individual who may come in contact with these products should read and understand the M.S.D.S. In case of emergency contact CHEMTREC EMERGENCY NUMBER at 800-424-9300.

**WARNING:** Contact with skin or inhalation of vapors may cause an allergic reaction. Avoid eye contact with the liquid or spray mist. Hypersensitive persons should wear protective clothes, gloves and use protective cream on face, hands and other exposed areas.

**CLEAN UP:** Use Water

**CONTAMINATION:** Avoid moisture contamination in containers. Containers should not be resealed if contamination is suspected, carbon dioxide created pressure can develop. Do not attempt to use contaminated material.

**EYE PROTECTION:** Safety glasses, goggles, or a face shield are recommended.

**SKIN PROTECTION:** Chemical resistant gloves are recommended. Cover as much of the exposed skin area as possible with appropriate clothing.

**RESPIRATORY PROTECTION** is MANDATORY! Respiratory protective equipment, impervious foot wear and protective clothing are required at all times during spray application. Contact BaySystems for a copy of the Model Respiratory Protection Program developed by API.

**INGESTION:** Do not take internally.

Consider the application and environmental concentrations in deciding if additional protective measures are necessary.

## Disclaimer

The data presented herein is not intended for non-professional applicators or those persons who do not purchase or utilize this product in the normal course of their business.

The potential user must perform any pertinent tests in order to determine the product's performance and suitability in the intended application, since final determination of fitness of the product for any particular use is the responsibility of the buyer. The aforementioned data on this product is to be used as a guide and is subject to change without notice.

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