

BENJAMIN FOSTER COMPANY PRODUCTS

A. General

Benjamin Foster Company has specialized in coatings and adhesives for the Industrial Insulation Industry and thus has numerous products, some for specific limited application and others for generalized application. The line of Foster products has been screened and only those items of interest to our operations are included in the data that follows on subsequent pages. To best present Foster product usage and data, the products have been segregated into categories similar to existing Armstrong products for comparison and easy reference. (See Exhibits 1 and 2 of this section). It does not necessarily follow that the composition of these materials is the same as those of our own manufacture.

Complete manufacturers data and specifications are available in a Foster Manual on file in each office or from your nearby Foster representative. It should be noted that Foster's erection specifications (blue pages) are intended as guide specifications only; the manufacturer requires that each application must be given consideration as to location, general service requirements and quality of the job desired. (See Section C, Application General for general recommendations). Where there is any question regarding the type of product or specification to be used, clearance should be obtained in writing from either the Benjamin Foster representative or Lancaster. Notable differences between these guide specifications and our published requirements are: (1) number of coats of vinyl emulsions required, (2) general usage of reinforcing membranes, both fabric and metal, with all products and (3) use of cut-back type materials.

1. Foster Code Number System

Foster products are identified by two hyphenated numbers. The prefix number designates a group of materials and the suffix number identifies the product within the group. The groups of materials or, in other words, the prefix numbers most commonly encountered in our operation are:

Prefix No.	Group	Similar Armstrong Product
10	Asphalt Emulsion	Standard Asphalt Emulsion
30/31	Pigmented Sealers or Finishes	Insulcolor
50	Paints and Enamels	Aluminum Cold Storage Paint
51	Primers	#3 Asphalt Paint
60	Mastic Coatings	Weatherproof Plastic
81/82	Adhesives	340, 520, 536, Insulcolor Lagging Adhesive
90	Miscellaneous Asphalt Compounds	Insulmastic
95	Caulking Compounds	Fitting Filler

B. Materials

There are Foster products similar in end use for each masonry in the Armstrong line, and, in addition, there are items for which we have no counterpart. The Foster products are generally greater in number, more finely sub-divided, and in some cases, are specialized in nature. For example, Foster 10-16 Liquid Asphalt

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Emulsion compares favorably with Armstrong Standard Asphalt Emulsion; where Armstrong Insulcolor is versatile as a finish and lagging adhesive, Foster has (a) 30-70 and the 11 seri Lactone - fire-retardant prodⁿ a similar in end use to Insulcolor as a lagging adhesive and finish, (b) 30-76 White Insulation Coating - a product similar to White Insulcolor but having no fire-resistant qualities, (c) 30-01 Protection Kote - a product similar to White Insulcolor but designed specifically for Foanglas, (d) 81-42 W Lactag - similar to White Insulcolor but for use only as a lagging adhesive, and (e) 30-36 Sealing - a product similar to White Insulcolor but possessing slightly improved moisture vapor resistance. Still others fall in this general Insulcolor type category. Armstrong Weather-proof Plastic may be applied by trowel, brush, or spray; however, in this category, Foster has similar items such as 60-25 G.I. Mastic (Trowel) or 60-26 G.I. Mastic (Spray). Additionally, there are fire-resistant vapor barrier mastics of non-asphaltic composition for which there is no Armstrong counterpart as 60-30 Fire-Resistant Mastic (Trowel) and 60-60 Fire-Retardant Mastic (Spray). These 60-30/60 materials may be further expanded as 60-30N/60N having non-flammable chlorinated solvents. Other materials of possible interest to us for which we have no similar item are Exterior Vinyl Vapor Barriers of the 50-56/72 and 57-16 numbers. (Refer to Exhibit 2 for a complete comparison between Armstrong and Foster products of similar end uses).

1. Fire-Retardant Products

Foster products classified as fire-retardant are capable of meeting the fire-resistance requirements of Military Specification MIL-C-3316. The intent of this statement is fire-resistance requirements only and does not mean the product will meet all demands of the Specification.

2. Vinyl Adhesives and Finishes (Insulcolor Type)

The use of Vinyl Adhesives and Finishes follows the general recommendations we publish for Insulcolor. One exception, with the understanding that appearance is sacrificed, is acceptance of single coat application indoors. Indoors, the coating is applied directly to the insulation or over factory applied canvas. Dusty surfaces such as Kaylo and 85% Magnesia require either a suitable prime coat or factory applied canvas. Also, where mechanical abuse may be expected indoors, a reinforcing membrane is recommended. Outdoors, two coats and a membrane are required as outlined in Paragraph 1b of Application, General.

- a. Lagging Adhesives and Sealers of the Insulcolor type are lighter bodied and generally should not be considered as finish coatings. Products of this nature are 81-42 W Lactag and 81-42 Fire-Retardant Lagging Adhesives.
- b. Vinyl Emulsion finish coatings are heavy bodied materials similar to Insulcolor and include such items as 30-01 Protection Kote for direct application to Foanglas, 30-70 Lactone and 30-76 White Insulation Coating for application similar to Insulcolor, 30-36 Sealing which may be considered a vapor barrier for conditions of 50°F and 75% R.H., and 30-79 White Cold Sealer designed especially as a refrigerated room finish.

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Lagtone is the original 30-76 White Insulation Coating with increased weather resistance and fire-retardant characteristics added. The fire-retardant qualities of 30-76 Lagtone and the pigmented grades meet the requirements of MIL-C-3316 (refer to Paragraph B.1 Fire-Retardant Products). It is assumed that 30-76 will ultimately replace 30-76 because of these desirable properties. Lagtone will withstand 16°F in transit and storage because it contains an anti-freeze. It can be allowed to freeze once in the can if thawed out carefully and mixed. If it is subjected to a second freeze, the material cannot be used. Lagtone is not recommended for application under 40°F.

3. Vapor Barrier Mastic

Vapor Barrier Mastics of the 60 series are not usually recommended over heat insulations. When specified by the customer, it will be approved by the Foster Company only if the insulation is completely dry. Insulations may be kept dry by:

- Priming (dilute coat 81-42 W Lagfas; 32-37 Gonite)
- Cover with tarpulins
- Coat daily work
- Turn on heat before coating

Application of these materials over metal mesh is not generally recommended.

4. Government Specifications

The manufacturer publishes information to the effect that the following materials meet Government Specifications:

Specification	Approval Number	Foster Product
MIL-E-3472, Clay	—	18-16 No. 16 Liquid Asphalt Emulsion
MIL-F-876a	KES-15/7500	30-17 Fire-Retardant Vapor Barrier
MIL-F-876a	KES-15/7557	30-30 Fire-Resistant Vapor Barrier
MIL-C-3004	KES-C-2814	30-36 Sealfas
MIL-B-19564	KES-010174	30-45 Foamseal
AS-4-701	—	51-03 Black Insulation Primer
MIL-C-19565	KES-010174	60-60 Fire-Retardant Mastic (Spray)
MIL-C-3316, Type III	KES-C-626	81-13 A-90 Adhesive
MIL-A-15199	—	81-27 Fibrous Adhesive
MIL-C-3316, Type I	KES-C-107	81-33 Fire-Retardant Adhesive
MIL-C-3316, Type II	KES-C-1997	81-42 Fire-Retardant Lagging Adhesive

C. Application, General

- REFER TO EXHIBITS 1 AND 2 OF THIS SECTION FOR APPLICATION SPECIFICATIONS, INDEX TO APPLICATION SPECIFICATIONS AND PRODUCT USAGE DATA.



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Foster erection specifications (blue pages) in the Foster Manual are intended as guide specifications only; the manufacturer requires that each application must be given consideration as to location, general service requirements and quality of the job desired. Where there is any question regarding the type of product or specification to be used, clearance should be obtained in writing from either the Benjamin Foster representative or Lancaster.

1. Use of Reinforcing Membranes

The following general recommendations by Foster will assist in the selection of the reinforcing medium.

a. Types of Reinforcing Membranes - Glass mesh is used where an attack on the membrane itself may be expected such as over a vapor seal mastic on a low temperature insulation or over wet heat insulations. Canvas is used where mechanical abuse may be expected since glass mesh has little shear strength. Metal mesh is recommended for use with heavy asphalt emulsions such as our Insulastix.

b. Use Outdoor-Indoor - Some type of reinforcing membrane is required outdoors in every case. Indoors, reinforcements are used where mechanical abuse may be expected or over-flexible materials such as Gaston-Bacon Snap-On pipe covering where resilience of the base may cause failure of the finish.

Generally, for outdoor applications, a layer of membrane is required somewhere in the finish over the base insulation. If an asphalt mastic is field applied with a fabric or metal membrane, no additional membrane is required in a vinyl finish where such vinyl finish is only decorative in nature. If the vinyl coating is applied directly to base insulation as the weathercoat, a membrane is required.

c. Dusty Surfaces - On dusty insulation surfaces such as Kaylo and 85% magnesia, a membrane is required (may be factory applied canvas) or the surface must be coated with a suitable Foster primer.

d. Conformance to Surface - A glass mesh will not conform as well to the surface as will canvas when used in conjunction with emulsions.

2. 30-70 Lagtone Application Over Mastic

No reinforcing membrane is required where Lagtone is applied over job-applied mastic having a membrane embedded, either outdoor or indoor. Outdoors, solvent type mastic must be dry before Lagtone is applied otherwise trouble can be expected. Outdoors, trouble can also be expected where Lagtone is applied without a reinforcing membrane over emulsion mastic known to crack excessively.

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BENJAMIN FOSTER COMPANY PRODUCTS

A. General

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Emulsion compares favorably with Armstrong Standard Asphalt Emulsion; where Armstrong Insulcolor is versatile as a finish and lagging adhesive, Foster has (a) 30-70 and the 31 series Lactone - fire-retardant product similar in end use to Insulcolor as a lagging adhesive and finish, (b) 30-76 White Insulation Coating - a product similar to White Insulcolor but having no fire-resistant qualities, (c) 30-01 Protection Kote - a product similar to White Insulcolor but designed specifically for Foaming, (d) 81-42 W Lagging - similar to White Insulcolor but for use only as a lagging adhesive, and (e) 30-36 Sealing - a product similar to White Insulcolor but possessing slightly improved moisture vapor resistance. Still others fall in this general Insulcolor type category. Armstrong Weather-proof Plastic may be applied by trowel, brush, or spray; however, in this category, Foster has similar items such as 60-25 C.I. Mastic (Trowel) or 60-26 C.I. Mastic (Spray). Additionally, there are fire-resistant vapor barrier mastics of non-asphaltic composition for which there is no Armstrong counterpart as 60-30 Fire-Resistive Mastic (Trowel) and 60-60 Fire-Retardant Mastic (Spray). These 60-30/60 materials may be further expanded as 60-30N/60N having non-flammable chlorinated solvents. Other materials of possible interest to us for which we have no similar item are Exterior Vinyl Vapor Barriers of the 50-56/72 and 57-16 numbers. (Refer to Exhibit 2 for a complete comparison between Armstrong and Foster products of similar end uses).

1. Fire-Retardant Products

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- a. Lagging Adhesives and Sealers of the Insulcolor type are lighter bodied and generally should not be considered as finish coatings. Products of this nature are 81-42 W Lagging and 81-42 Fire-Retardant Lagging Adhesive.
- b. Vinyl Emulsion finish coatings are heavy bodied materials similar to Insulcolor and include such items as 30-01 Protection Kote for direct application to Foaming, 30-70 Lactone and 30-76 White Insulation Coating for application similar to Insulcolor, 30-36 Sealing which may be considered a vapor barrier for conditions of 50°F and 75% R.H., and 30-79 White Cold Sealer designed especially as a refrigerated room finish.

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Lagtone is the original 30-76 White Insulation Coat with increased weather resistance and fire-retardant characteristics added. The fire-retardant qualities of 30-70 Lagtone and the pigmented grades meet the requirements of MIL-C-3316 (refer to Paragraph B.1 Fire-Retardant Products). It is assumed that 30-70 will ultimately replace 30-76 because of these desirable properties. Lagtone will withstand 16°F in transit and storage because it contains an anti-freeze. It can be allowed to freeze once in the can if thawed out carefully and mixed. If it is subjected to a second freeze, the material cannot be used. Lagtone is not recommended for application under 40°F.

3. Vapor Barrier Mastics

Vapor Barrier Mastics of the 60 series are not usually recommended over heat insulations. When specified by the customer, it will be approved by the Foster Company only if the insulation is completely dry. Insulations may be kept dry by:

- Priming (dilute coat 81-42 W Lagfas; 32-37 Conite)
- Cover with tarpenline
- Coat daily work
- Turn on heat before coating

Application of these materials over metal mesh is not generally recommended.

4. Government Specifications

The manufacturer publishes information to the effect that the following materials meet Government Specifications:

Specification	Approval Number	Foster Product
MIL-E-3472, Clay	—	10-16 No. 16 Liquid Asphalt Emulsion
MIL-F-876a	KE28/15/7500	30-17 Fire-Retardant Vapor Barrier
MIL-F-876a	KE28/15/7557	30-30 Fire-Resistant Vapor Barrier
MIL-C-3002	KE3-C-2814	30-36 Sealfas
MIL-B-19564	KE3-010174	30-45 Foamseal
SS-A-701	—	51-03 Black Insulation Primer
MIL-C-19565	KE3-010174	60-60 Fire-Retardant Mastic (Spray)
MIL-C-3316, Type III	KE3-C-626	81-13 A-90 Adhesive
MIL-A-15199	—	81-27 Fibrous Adhesive
MIL-C-3316, Type I	KE3-C-107	81-33 Fire-Retardant Adhesive
MIL-C-3316, Type II	KE3-C-1997	81-42 Fire-Retardant Lagging Adhesive

C. Application, General

- REFER TO EXHIBITS 1 AND 2 OF THIS SECTION FOR APPLICATION SPECIFICATIONS, INDEX TO APPLICATION SPECIFICATIONS AND PRODUCT USAGE DATA.

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