

AmeriGlue™ FE 740 ROOFING ADHESIVE

DESCRIPTION:

The **FE740 Roofing Adhesive** is a low viscosity; all water-blown, spray applied polyurethane adhesive with high bonding strength and a large temperature application range to be used for the attachment of rigid insulation boards to various substrates.

ADDITIONAL TESTING APPROVALS & CERTIFICATIONS:

AmeriGlue™ FE740 Roofing Adhesive has completed testing in accordance with Underwriters Laboratories UL1897, "Uplift Tests for Roof Covering Systems" in several different construction configurations.

UL1897 Uplift Ratings and Constructions ¹						
Uplift Rating	Roof Deck	AmeriGlue™ FE740 Application Rate	Barrier Board	Rigid Board ⁴ Insulation	SPF ⁵ Insulation	Surfacing
240 psf	Plywood ²	1.25 gal / 100 sq-ft	-	2.6" minimum	-	Built-up ⁶
210 psf	Plywood ²	1.25 gal / 100 sq-ft	-	2.6" minimum in 2 layers	-	Built-up ⁶
150 psf	Steel ³	1.25 gal / 100 sq-ft	-	1.3" minimum	-	Built-up ⁶
135 psf	Steel ³	1.25 gal / 100 sq-ft	G-P DensDeck, 1/4" min	1.3" minimum	-	Built-up ⁶
120 psf	Steel ³	1.25 gal / 100 sq-ft	Gypsum board, 1/2" min	1.3" minimum	-	Built-up ⁶
195 psf	Steel ³	1.25 gal / 100 sq-ft	Gypsum board, 1/2" min	-	1" minimum	Fluid-applied ⁷
210 psf	Steel ³	1.25 gal / 100 sq-ft	-	1.3" minimum	1" minimum	Fluid-applied ⁷
240 psf	Plywood ²	1.25 gal / 100 sq-ft	-	2.6" minimum	1" minimum	Fluid-applied ⁷
210 psf	Plywood ²	1.25 gal / 100 sq-ft	-	2.6" minimum in 2 layers	1" minimum	Fluid-applied ⁷

1 - Additional information available from UL's Online Certifications Directory (<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.html>). Search under UL Category Code "TGIK" and UL File Number "R9865".

2 - 15/32" APA rated plywood decking

3 - 22 MSG steel decking

4 - "ACFoam II" manufactured by Atlas Roofing Corporation

5 - "FE348-2.5", "FE348-2.7", "FE348-2.8", "FE348-3.0", "FE348-3.2", and ELASTOSPRAY® "81255", "81275", "81285", "81305", and "81325"

6 - Any UL Classified hot mopped built-up system; see UL Roofing Systems (TGFU) category

7 - Any UL Classified fluid applied base coat and top coat applied in accordance with specified combinations; see UL Roofing Systems (TGFU) category

AmeriGlue™ FE740 Roofing Adhesive has also completed testing in accordance with FM Approvals Class 4470, "Approval Standard for Class 1 Roof Covers" and is a component in approximately 4,000 roof assemblies identified by an FM Roof Assembly Number. Additional, detailed information regarding Roof Assemblies is accessible from FM Approvals' RoofNav® online tool / database (<https://roofnav.fmglobal.com/RootNav/Login.aspx>).

Roof Decks: Concrete or Recover

Slope Range: 0.25" / 12" up to 5" / 12"

Uplift Range: 60 psf up to 615 psf

Interior Fire: 1-hr ratings available

Exterior Fire: Class A, B, and C available

Hail Resistance: "Moderate" and "Severe" ratings available



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TYPICAL PROPERTIES

<u>PROPERTY</u>	<u>VALUE</u>	<u>TEST METHOD</u>
As Supplied		
Specific Gravity @ 70°F	1.055	ASTM D 1638
Viscosity @ 70°F (cps)	240	Brookfield
Weight per gallon	8.8 lbs./gal.	
Hand Mix Reactivity @ 70°F		
Initial Rise (seconds)	7 – 9	
Gel (seconds)	35 – 45	
Tack Free (seconds)	110 – 120	
Density (lbs./Ft. ³)	2.7 – 2.9	ASTM D 1622
Spray Reactivity – FE 740-M		
Conducted with a Gusmer Predator, Gusmer GAP Gun, #4 Mix Chamber, V-Force Tip, Primary Heater set to 130°F, Hose Heat at 130°F, Spray pressures at 800 psi.		
Substrate: 70°F Fiber Reinforced Concrete Board		
Initial Rise (seconds)	8	
Gel (seconds)	30	
Tack Free (seconds)	160	
Substrate: 45°F Fiber Reinforced Concrete Board		
Initial Rise (seconds)	14	
Gel (seconds)	120	
Tack Free (seconds)	240	

GENERAL INFORMATION:

The **AmeriGlue FE 740 Roofing Adhesives** may be used in conjunction with Dry, Clean - Fiberboard, Rigid Insulation Board, Concrete, Sheetrock Type Gypsum Boards, Wood Fiber, Wood and Painted or Galvanized Steel, Smooth or Gravel BUR, Mineral Capsheets, Smooth or granulated Mod-Bit, Structural or Lightweight Concrete, SPF and DensDeck®.

AmeriGlue FE 740 is a spray polyurethane adhesive foam (SPF) system intended for installation by qualified contractors trained in the processing and application of SPF systems, as well as the plural-component polyurethane dispensing equipment required to do so. Contractors and applicators must comply with all applicable and appropriate storage, handling, processing and safety guidelines. BASF technical service personnel should be consulted in all cases where application conditions are questionable.

TYPICAL REACTIVITIES – FE 740M

Target Temperature	20°F	40°F	60°F	80°F	100°F	120°F
Initial Rise	18	14	10	6	4	2
Gel	160	120	75	30	20	15
Tack Free	280	240	200	160	110	90
Insulation Placement	180-260	150-220	100-180	60-140	30-90	20-80

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Warning: These products can be used to prepare a variety of polyurethane products. Polyurethanes are organic materials and must be considered combustible.

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The insulation placement times listed will insure optimum adhesion of the insulation board with minimal or no slippage of the board as it is walked into the adhesive. If slippage or movement occurs during the walk-in of the insulation board, the placement of the board should be delayed until the movement or slippage reaches a minimum. This allows placement and wet-out of the board while maintaining an optimum level of adhesive between the insulation and the substrate.

Application Instructions

Prior to applying the **FE 740 Roofing Adhesives**, the surface to which the adhesive is being applied must be inspected to insure that it is clean, dry and free of any sharp edges or irregular surfaces which could interfere with the placement and complete contact of material being installed. The surface should be clean, and free of any moisture or loose materials.

When applying the **FE740 Roofing Adhesives** over existing insulation, all wet materials must be removed and remaining moisture dried before the application. When applying over pre-existing SPF, the substrate should be scarfed or primed depending on the coating used. When applied over new SPF, the adhesive may be applied directly to the foam surface.

Once the deck has been inspected and prepared, the **FE740 Roofing Adhesive** should be applied to obtain complete coverage, with the resulting adhesive layer attaining a final thickness of 1/4 to 3/8 of an inch.

The adhesive should be allowed to begin to rise before placing the material to be adhered over the adhesive. A short period of time must be allowed for the adhesive to begin to gel before walking the board into place. Attempting to place the board and walk it into place before the adhesive has gelled may result in difficulty keeping the board in place and result in a poor bond due to adhesive being forced out from under the board. This may result in an insufficient amount of adhesive for proper bonding.

The **FE 740 Roofing Adhesive** application is limited to temperatures above 20°F.

Storage temperatures above the recommended range will shorten shelf life. Storage temperatures above the recommended range may also result in elevated headspace pressure within packages.

CAUTIONS AND RECOMMENDATIONS:

AmeriGlue FE 740 is designed for an application rate of ¼ inch minimum to 3/8 inches maximum. **AmeriGlue FE 740** is designed for installation in moist standard construction configurations using common materials such as wood and wood products, metal and concrete. Foam plastic materials installed in walls or ceilings may present a fire hazard unless protected by an approved, fire-resistant thermal barrier with a finish rating of not less than 15 minutes as required by building codes.

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

In addition to reading and understanding the MSDS, all contractors and applicators must use appropriate respiratory, skin and eye Personal Protective Equipment (PPE) when handling and processing polyurethane chemical systems. Personnel should review the following documents published by Spray Polyurethane Foam Alliance (SPFA):

AX-171 Course 101-R Chapter 1: Health, Safety and Environmental Aspects of Spray Polyurethane Foam and Coverings

The following document is available from the Center for the Polyurethanes Industries (CPI):

Model Respiratory Protection Program for Compliance with the Occupational Safety and Health Administration's Respiratory Protection Program Standard 29 C.F.R. §1910.134

AIR INTAKE UNITS SHOULD BE SHUT DOWN AND VENTS SEALED DURING POLYURETHANE SPRAY APPLICATIONS.

As with all SPF systems, improper application techniques such as: excessive thickness of SPF, off-ratio material and spraying into or under rising SPF. Potential results of improperly installed SPF include: dangerously high reaction temperatures that may result in fire and offensive odors that may or may not dissipate. Improperly installed SPF must be removed and replaced with properly installed materials.

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LARGE MASSES of SPF should be removed to an outside safe area, cut into smaller pieces and allowed to cool before discarding into any trash receptacle.

SPF insulation is combustible. High-intensity heat sources such as welding or cutting torches must not be used in contact with or in close proximity to **AmeriGlue FE 740** or any polyurethane foam.

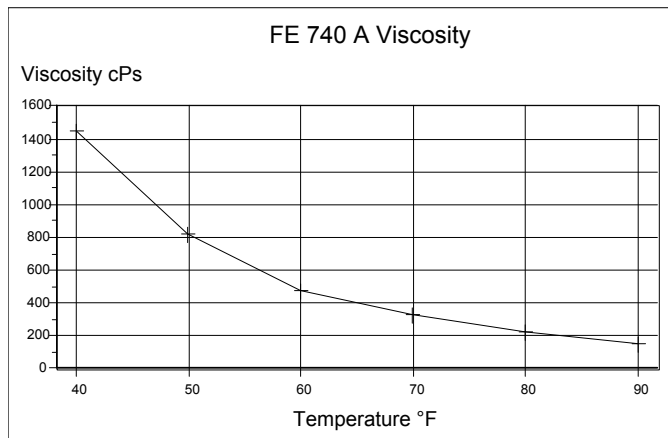
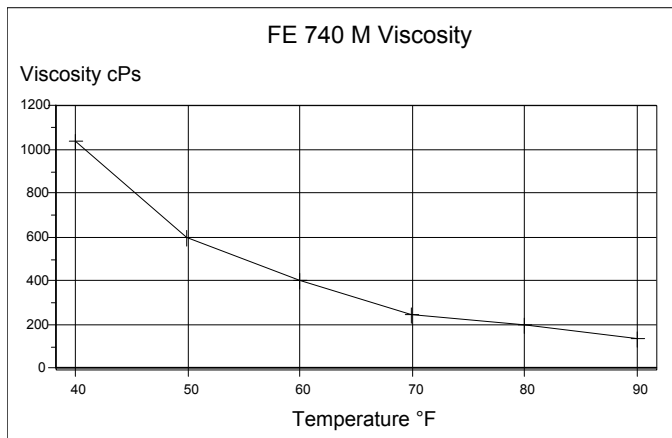
SHELF LIFE AND STORAGE CONDITIONS:

AmeriGlue FE 740 Series has a shelf life of approximately three months from the date of manufacture when stored in original, unopened containers at 50-80°F. As with all industrial chemicals this material should be stored in a covered, secure location and never in direct sunlight. Storage temperatures above the recommended range will shorten shelf life. Storage temperatures above the recommended range may also result in elevated headspace pressure within packages.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY:

The information herein is to assist customers in determining whether our products are suitable for their applications. Our products are only intended for sale to industrial and commercial customers. Customer assumes full responsibility for quality control, testing and determination of suitability of products for its intended application or use. We warrant that our products will meet our written liquid component specifications. We make no other warranty of any kind, either express or implied, by fact or law, including any warranty of merchantability or fitness for a particular purpose. Our total liability and customers' exclusive remedy for all proven claims is replacement of nonconforming product and in no event shall we be liable for any other damages.

AmeriGlue FE 740 – VISCOSITY vs. TEMPERATURE:



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