

AFB™ Acrylic Foam Bond

Product Selection Guide

> Adhesion

Acrylic foam is viscoelastic in nature with flow and self adhesion properties which offers excellent bonding to a broad range of substrates.

> Durability

The unique composition of acrylic foam chemistry provides exceptional durability performance.

> Temperature Resistance

Service temperatures are higher than normal PE foam bonding operating parameters.

> Application Flexibility

Acrylic foam is suitable for wide range of component assembly, mounting and fixation applications in appliances, electronic devices, signage and graphics.



Foam Bonding Solutions – AFB™

AFB™ – Acrylic Foam Bond line of products is designed for a wide range of industrial applications requiring a high level of bonding strength. Our acrylic foam tapes are engineered to provide strong tack and adhesion to a multiple range of substrates such as PC, ABS, PMMA and metal.

Features:

- Foam tape with viscoelastic acrylic foam carrier
- Closed cell structure
- Acrylic adhesive system
- Paper and film easy release liners

Benefits

- High adhesion combined with good shear absorbs shock and distributes stress evenly
- Good moisture, UV and high temperature resistance
- Uniform bonding performance
- Can help eliminate the need for mechanical fasteners, drilling or grinding and related clean-up for certain applications
- Polyethylene liner option helps provide good moisture stability and easier converting with its high tear strength

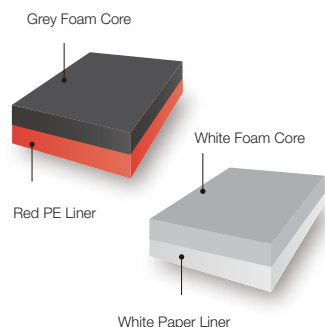
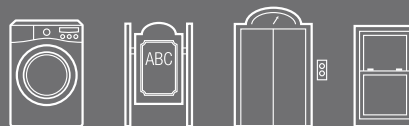
Temperature Ranges:

- Application minimum: +10°C /+50°F
- Service continuous: -40°C /-40°F to +120°C /248°F
- Service short term: +160°C /320°F

Typical Applications:

- Glass and window mounting (water resistant)
- Loudspeaker and microphone bonding, television display and frame mounting
- Door frame mounting for design decoration, refrigerator and other home appliances
- Nameplate, signboard and other component assembly and lamination
- Elevator stiffener mounting and lamination
- Assembly of cushions, pads or strips, fixation of mirrors and cabinet doors in furniture

Acrylic foam offers enhanced internal strength properties versus PU and PE foams. Additionally, AFB provides good foam relaxation and stress vibration and can be used for gap filling.



General Purpose AFB™ 66 - Series

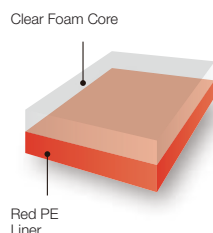
Viscoelastic acrylic foam, general purpose acrylic adhesive. Available in grey and white.

Benefits:

- Economic bonding solution with high initial and ultimate bond strength
- Easy to apply, smooth look aesthetics
- Offers vibration damping performance
- Conformable foam density allows for good lamination to irregular or mismatched surfaces

Applications:

- Metal or plastic bonding requiring high internal strength
- Appliance construction and attachments
- Lamination, nameplates and signage
- Furniture assembly, electronics mounting, television frame mounting



General Purpose AFB™ 66 - C Series

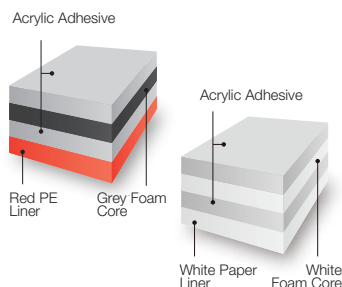
Very high density, transparent solid acrylic.

Benefits:

- Excellent adhesion, clarity after aging and stain resistant properties
- Suitable for applications where clear or colorless is required
- General purpose adhesive on both sides for high surface energy substrates
- Good weather and environment resistant properties

Applications:

- Glass or clear material fixation
- Seals between the inner and outer domes of skylights
- Resin filled glass edge bonding



Multi-Purpose AFB™ 61 - Series

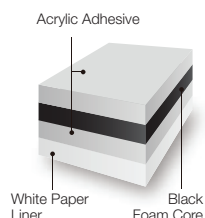
Viscoelastic acrylic foam, double coated modified acrylic adhesive. Available in black, grey and white.

Benefits:

- Conformable foam density allows for better lamination
- Excellent bond strength on various materials
- Resistant to plasticizer migration in vinyl substrates
- Excellent environment resistant properties
- Easy to die cut for a precise fit
- Helps seals against water and moisture

Applications:

- Home appliance door frame mounting (refrigerator/microwave)
- Washing machine control panel mounting
- Display (PDP/LCD/LED) frame holder/ front mask/decoration



Multi-Purpose AFB™ 61 - Thin Series

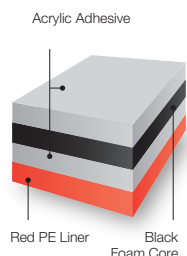
Viscoelastic thin acrylic foam, double coated multi-purpose acrylic adhesive. Available in black.

Benefits:

- Light shielding
- Excellent water resistant properties
- Provides damping and vibration, cushions absorbs impact
- Easy to die cut for a precise fit
- Can be used for gap filling and adhesion to irregular surfaces

Applications:

- Television display and frame mounting
- Mobile phone and tablet frame mounting
- Name plate attachments



Low Surface Energy (LSE) AFB™ 62 - Series

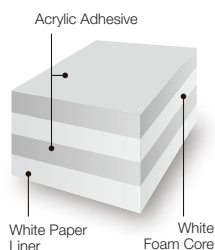
Viscoelastic acrylic foam, double coated modified acrylic adhesive. Available in black.

Benefits:

- Good bonding to medium and low surface energy substrates including powder coated paints
- Conformable foam density allows for good lamination to irregular or mismatched surfaces, maintains high internal strength
- Helps seals against water and moisture

Applications:

- Glass board mounting, stiffener mounting
- Home appliance assembly; refrigerator door frame mounting with powder coated panels



Low Surface Energy (LSE) AFB™ 64 - Series

Viscoelastic acrylic foam, double coated modified acrylic adhesive. Available in white.

Benefits:

- High performance adhesive enables bonding to low surface energy materials; many plastics and powder coated paints and smooth surface general materials
- Customized adhesive solution for Low Surface Energy (LSE) substrates

Applications:

- Suitable for applications requiring high bonding strength with low surface energy materials
- Home appliance assembly; refrigerator door frame mounting with powder coated panels

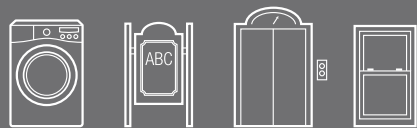
Foam Bonding Solutions – AFB™

Acrylic Foam Bond Products

Product		General Purpose		
		AFB 66 - Series		AFB 66 - C Series
Foam Core Color		White	Grey	Clear
Density Level		Firm 800 kg/m ³ = 50 lb/ft ³	Firm 750 kg/m ³ = 47lb/ft ³	Solid 1000 kg/m ³ = 63 lb/ft ³
Liner System		Red PE - AD imprint	Red PE	Red PE
0.15mm	5.91 mils			
0.20mm	7.87 mils			
0.25mm	9.84 mils	AFB 6625W	AFB 6625G	AFB 6625C
0.40mm	15.75 mils		AFB 6640G	
0.50mm	19.69 mils			AFB 6650C
0.60mm	23.62 mils		AFB 6660G	
0.64mm	25.20 mils			AFB 6664C
0.80mm	31.50 mils		AFB 6680G	AFB 6680C
1.00mm	39.37 mils	AFB 6610W	AFB 6610G	AFB 6610C
1.10mm	43.31 mils			
1.20mm	47.24 mils		AFB 6612G	
1.50mm	59.06 mils		AFB 6615G	
2.00mm	78.74 mils		AFB 6620G	

Acrylic Foam Bond Products

Product		Multi-Purpose			
		AFB 61 - Series			AFB 61 - Thin Series
Foam Core Color		Grey	Black	White	Black
Density Level		Conformable 700 kg/m ³ = 44 lb/ft ³		Firm 820 kg/m ³ = 51 lb/ft ³	Firm 920 kg/m ³ = 58 lb/ft ³
Liner System		Red PE - AD imprint	Red PE - AD imprint	White Paper	White Paper
0.15mm	5.91 mils				AFB 6105B
0.20mm	7.87 mils				AFB 6102B
0.25mm	9.84 mils				
0.40mm	15.75 mils	AFB 6140G		AFB 6140W	
0.50mm	19.69 mils				
0.60mm	23.62 mils				
0.64mm	25.20 mils	AFB 6164G	AFB 6164B	AFB 6164W	
0.80mm	31.50 mils	AFB 6180G		AFB 6180W	
1.00mm	39.37 mils				
1.10mm	43.31 mils	AFB 6111G	AFB 6111B	AFB 6111W	
1.20mm	47.24 mils			AFB 6112W	
1.50mm	59.06 mils	AFB 6115G	AFB 6115B		
2.00mm	78.74 mils	AFB 6120G			
3.00mm	118.11 mils			AFB 6130W	



Acrylic Foam Bond Products

Product		Low Surface Energy (LSE)	
		AFB 62 - Series	AFB 64 - Series
		Black	White
Density Level		Conformable 800 kg/m ³ = 50 lb/ft ³	Firm 800 kg/m ³ = 50 lb/ft ³
Liner System		Red PE - AD Imprint White Paper	White Paper
0.15mm	5.91 mils		
0.20mm	7.87 mils		
0.25mm	9.84 mils		
0.40mm	15.75 mils		
0.50mm	19.69 mils		
0.60mm	23.62 mils		
0.64mm	25.20 mils	AFB 6264B	AFB 6464W
0.80mm	31.50 mils	AFB 6280B	
1.00mm	39.37 mils		
1.10mm	43.31 mils	AFB 6211B	AFB 6411W
1.20mm	47.24 mils		
1.50mm	59.06 mils	AFB 6215B	
2.00mm	78.74 mils		

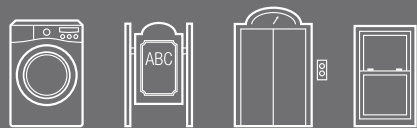
Liner color options available



Foam Bonding Solutions – AFB™

AFB™ Substrate Selector Guide

	Aluminum	Stainless Steel	Copper	Zinc	Tin	Lead	Glass	Kapton	Phenolic	Nylon	Alkyd Enamel	Polyester	Epoxy Paint	Polyurethane	ABS	Polycarbonate	PVC	Noryl	Acrylic	Polane Paint	Powder paint	PVA	Polystyrene	Acetal	Powder Paint	EVA	Polyethylene	Polypropylene	Tedlar
Aluminum	<div>AFB™ 66</div> <div>High Surface Energy</div>														<div>AFB™ 61</div> <div>Medium Surface Energy</div> <div>High Surface Energy</div>											<div>AFB™ 62 and AFB™ 64</div> <div>Low Surface Energy</div> <div>Medium Surface Energy</div> <div>High Surface Energy</div>			
Stainless Steel																													
Copper																													
Zinc																													
Tin																													
Lead																													
Glass																													
Kapton																													
Phenolic																													
Nylon																													
Alkyd Enamel																													
Polyester																													
Epoxy Paint																													
Polyurethane																													
ABS																													
Polycarbonate																													
PVC																													
Noryl																													
Acrylic																													
Polane Paint																													
Powder paint																													
PVA																													
Polystyrene																													
Acetal																													
Powder Paint																													
EVA	<div>AFB™ 62 and AFB™ 64</div> <div>Low Surface Energy</div> <div>Medium Surface Energy</div> <div>High Surface Energy</div>																												
Polyethylene																													
Polypropylene																													
Tedlar																													



Application Guidelines

Clean

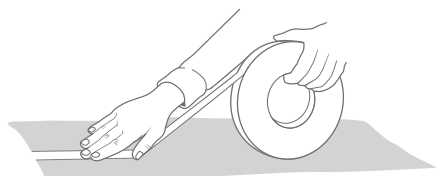
Clean the area to be bonded with a 50/50 mixture of isopropyl alcohol and water with a **clean, non-abrasive cloth**. Cleaning with a contaminated cloth can compromise adhesion.



Temperature

The recommended temperature range for applying AFB tapes is: 16-43°C / 60-110°F in a humidity range between 30-80%.

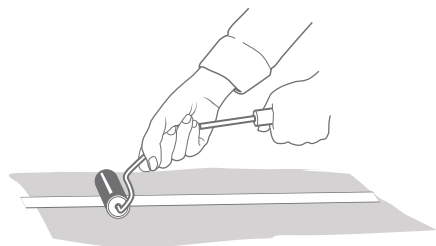
In colder months, winter season or if stored in a cold storage area, warm tape at 38°C / 100.4°F for 2-3 hours before applying.



Pressure

Pressure is needed to provide intimate contact (or wet-out) between the tape and the bonding surface.

Recommendation is to use 15lbs. of roller pressure per 1.27cm (0.5in) of tape width. Visually, this is to compress the tape 1/3 to 1/2 its starting thickness during lamination.



Time

Time	Bond Strength	Time	Bond Strength
20 minutes	50%	24 hours	90%
60 minutes	75%	3 days	100%

Microscopically, wet-out contact and bond strength are shown below.



Amount of AFB Tape To Be Used

As a general rule, use four square inches of tape for every 1lb. of weight load.

Storage/Shelf Life

18-22°C (64-72°F), 30-70% RH, out of direct sunlight, 2 years of shelf life.

About Avery Dennison

Avery Dennison (NYSE:AVY) is a global leader in labeling and packaging materials and solutions. The company's applications and technologies are an integral part of products used in every major market and industry. With operations in more than 50 countries and 26,000 employees worldwide, Avery Dennison serves customers with insights and innovations that help make brands more inspiring and the world more intelligent. Learn more at www.averydennison.com.

About Avery Dennison Performance Tapes

Avery Dennison Performance Tapes is a world-class operation focused on developing and manufacturing high-performance pressure-sensitive adhesives and tapes for a broad range of applications in automotive, electronics, building and construction, specialty industrial and personal care markets. The organization has over 30 years of experience supplying standard and customized pressure-sensitive materials designed to deliver innovative solutions for customers' needs across the globe. Worldwide facilities ensure a global presence supported by sales offices throughout the region. Learn more at www.tapes.averydennison.com.

Please refer to **Tapes.AveryDennison.com** for complete terms and conditions, including warranty terms, relating to this product. You should periodically review the site as terms and conditions are subject to change without notice.

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