

Experience
Advantage Adhesives
for Wood Windows.



Tradition of Excellence

We're proud of Franklin Adhesives & Polymers™' experience in adhesive technology. Our vast knowledge of windows and patio doors provides a strong foundation to serve the industry. Over the years, we've designed high-performance adhesives for countless window and patio door applications throughout North America. Our Advantage® product line designed specifically for wood windows and patio doors is second to none in the industry. Manufacturers can expect water-resistance, heat-resistance and high performance from Franklin's wood adhesives.

Our commitment to ongoing research and product development results in innovative products created to meet evolving industry needs. We pride ourselves on offering products that are backed by independent laboratory certification according to leading U.S. and international performance standards.

Experience the Advantage

Franklin Adhesives & Polymers' Advantage line of products features high-performance two-component cross-linking PVA adhesives, offering water-resistance and versatility of application. The Advantage line can be used for lamination and finger jointing as well as edge and face gluing.

Specific attributes of the Advantage line

- Superior performance in radio frequency applications
- Durability to withstand exposure to high temperature and humidity
- Some of the highest-performing products on the market as measured by ASTM and Hallmark standards
- Low minimum use temperature

Franklin Adhesives & Polymers offers the Advantage Trio which draws on three proven adhesives in the Advantage family of products: Advantage 415, Advantage 425 and Advantage EP-925.

Together the Trio provides window manufacturers with the ideal window adhesive solution.



"The Advantage Trio reflects our decades of experience in wood windows and patio doors. Our experience in this market culminates in a set of top-performing wood window adhesives that, together, provide wood window manufacturers the ideal solution for achieving high productivity at the plant and the most durable assembly for high-quality products."

Jaye Schroeder
vice president of wood market development
Franklin Adhesives & Polymers

Advantage 415



A highly water-resistant, two-part crosslinking polyvinyl acetate emulsion adhesive with a low minimum use temperature. When mixed with Aluminum Chloride (Catalyst A) the product surpasses both ASTM D-5572 wet use finger joint and ASTM D-5751 wet use lamination standard. These are the basis for Hallmark Certification.

Product features

- Highly water-resistant
- Low minimum use temperature
- Longest open time of any of Franklin's products for windows
- Adhesive can be used for hot and cold pressing, edge gluing and finger jointing as well as radio frequency gluing

Advantage 425



Highly water-resistant, two-part crosslinking polyvinyl acetate emulsion adhesive developed for finger jointing. When mixed with Aluminum Chloride (Catalyst A) the product surpasses the ASTM D-5572 wet use finger joint standard for flexures and tension. This standard is the basis for Hallmark Certification of glued finger joints.

Product features

- One of the highest performing, water-resistant PVAs
- Easily surpasses Hallmark & ASTM D-5572 wet use requirements
- Easy to extrude
- Low minimum use temperature

Advantage EP-925



A two-component emulsion polymer isocyanate (EPI) adhesive recommended for applications requiring exceptional water, heat and solvent resistance. It can be utilized with conventional cold press or hot press equipment and has been enhanced to provide superior performance with radio frequency press equipment.

Product features

- Exceptional water, heat and solvent resistance
- Allows for a reduction in conditioning time before surfacing
- Good spreader stability
- Low foaming compared to other traditional EPI adhesives
- Use with cold or hot press and radio frequency equipment

Advantage 415 can be used for edge gluing, hot pressing finger jointing and radio frequency gluing. The product has the longest open time of any of Franklin's adhesives designed for window components. Some of the industry's most recognized window brands use this product.

Exceeding industry standards*

ASTM D-5751-99 wet use lamination

ASTM D-5572-99 wet use finger joint

*Like all adhesives, proper gluing practices are needed to achieve stated performance.

ASTM D-5751-99

wet use edge glue / laminate joint, ponderosa pine

	Test Results		Requirements	
	Strength (psi)	Wood Failure %	Strength (psi)	Wood Failure %
Dry	1818	91	741	60
Vacuum Pressure	923	81	618	50
Boil	759	61	618	50
Elevated Temp.	1128	42	494	40

Exceeding industry standards*

ASTM D-5572-99 wet use finger joint / flexures

ASTM D-5572-99 wet use finger joint / tension

*Like all adhesives, proper gluing practices are needed to achieve stated performance.

ASTM D-5572-99

wet use tension test

Exposure	Test Results				Requirements		
	Strength (psi)		Wood Failure %		Strength (psi)		Wood Failure %
	Average	Minimum	Average	Minimum	Minimum	Average	Minimum
Dry	6263	4715	84	65	2000	60	30
Vacuum Pressure	2468	2042	67	55	1600	50	25
Boil	2088	1821	68	60	1600	50	25
Elevated Temp.	3544	2681	79	70	1600	N/A	N/A

ASTM D-5572-99

wet use flexure test - average PSI

Adhesive	2 Cycle Boil	Vacuum/Pressure
Advantage 425 / 6% Cat. A	3567	3066
Hallmark requirement	1400	1400
ASTM requirement	1400	1400

Meeting industry standards*

ASTM D-5751-99 laminated joint testing:

TECO 05-243A (SYP) & 05-243C (Radiata Pine)

ASTM D-905 block shear

Tested after 7 days conditioning at 75°F and after 18 hours at 150°F.

Japanese Industrial Standard Class 1, Grade 1

Japanese Agricultural Society (JAS) standard for glued laminated timber

Cold water soak delamination test

Boiling water soak delamination test

EN204 Group D4

WATT 91: >7N/mm2

*Like all adhesives, proper gluing practices are needed to achieve stated performance.

ASTM D-905 Block Shear (Maple)

Temperature	Strength (psi)	Wood Failure %
75°F	3990	61
After 18 hours @ 150°F	3195	78

Ready to try them out?

We're ready to help you put your windows together with our high performing wood adhesives. Call 1.800.877.4583 to connect with an account manager today.

Technical Leadership

With over 70 years of combined hands-on experience, our technical support team is one of the most recognized and respected in the industry. We welcome your calls and encourage you to contact us if you have any questions or concerns regarding any of our wood adhesives.



ADVANTAGE 

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