

Franklin's recommended products

Multibond EZ-2

Designed for cold press applications including interior finger jointing, but can also be used for assembly and hot press gluing. It has a low minimum use temperature and meets ASTM D5572 dry use and DIN EN 204 D3.

Multibond X-016 & Catalyst A

Highly water-resistant adhesive ideal for finger jointing, cold press, radio frequency and hot press applications. It exceeds ASTM D5572 wet use performance requirements and DIN EN 204 D4.

Advantage FJ-435

High performance adhesive created specifically for finger joint applications. It exceeds the ASTM D5572 wet use finger joint standard.

Advantage 405

Highly water-resistant two-part adhesive that surpasses both the ASTM D5572 wet use finger joint and ASTM D5751 wet use laminate standard.

Advantage 415

Highly water-resistant two-part adhesive with longer working time that surpasses both the ASTM D5572 wet use finger joint and ASTM D5751 wet use laminate standard.

ReactITE 8143

A one-component, low foam, moisture-curing adhesive designed for finger jointing applications. It is a 100% solids adhesive that eliminates the VOCs and waste associated with many traditional adhesives.

Advantage EP-950A

An acrylic-based EPI with exceptional water and heat resistance that exceeds the requirements of ASTM D2559-12a, ASTM D7247-07ae1, ANSI 405-2013 and CSA O112.10 for structural applications. This also meets CSA O112.9, which is more stringent than O112.10.

Woodbond 1910

Ideal for finger jointing of interior stock and has excellent handling properties, high viscosity, heat resistance and easy extrusion capabilities. It meets ASTM D5572 dry use requirements.

Technical Leadership

With over 90 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 finger jointing adhesives.



For additional support, try our pressure point calculators available 24/7 online at www.FranklinAdhesivesandPolymers.com. With our collection of online calculators, you can determine the appropriate settings and costs when using our adhesives for finger jointing.

1.800.877.4583



gluing guide Adhesives for Finger Jointing



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Adhesives for Finger Jointing

Franklin Adhesives & Polymers has a complete line of non-structural finger jointing adhesives, each designed for a particular end-use requirement. For instance, Multibond EZ-2, a one-part cross-linking PVA, meets ASTM D5572 dry use requirements and is frequently used for interior applications. It is also the perfect choice if some water resistance is desired. For exterior finger joints requiring ASTM D5572 wet use performance, Advantage 405 and Advantage FJ-435 are the preferred adhesive choices used by some of America's leading window and door manufacturers.



The following tips may help you achieve a properly fitting finger joint or trouble shoot problems in your operation guidelines.

Cutter-heads

- Knife Stack/Set – Be sure to check overall knife stack for accuracy. Keep cutter-heads in pairs and properly cleaned. Cutter-heads should be sharpened as a set. Knife set should cut only 0.25 mm or 0.010 inches to 0.75 mm or 0.030 inches of wood.

Joint assembly

- End pressure should be set to provide 14.0 kg/cm² – 35.0 kg/cm² or 200 – 500 psi pressure for non-structural joints.
- Crowder wheels should be aligned to match fingers accurately.

Adhesive application

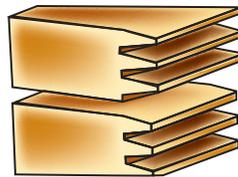
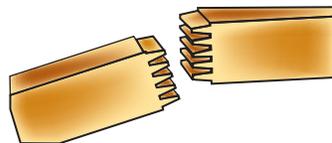
- Sufficient adhesive spread will provide a uniform coverage that should cover one-half to two-thirds the length of the finger on both sides in a thin continuous film. Make sure fingers aren't skipped and that the adhesive is applied to the whole joint, not just the tips of the fingers.
- If the adhesive is a two-component system, make sure the ingredients are properly mixed.
- Excess adhesive squeeze-out can cause arcing in a high frequency tunnel. It also causes adhesive build-up and adhesive waste. Too much adhesive can cause a hydraulic effect in finger joint back off.

Finger Jointing Trouble Shooting Guide

Below is a list of the most common problems, causes and recommendations.

Trouble shooting guide

The preparation of joints as well as the adhesive itself plays a critical role in the quality of finger jointed products. Most failures of finger jointed lumber are caused by poorly machined and poorly fitted dry joints. The adhesive is a factor in heat and water resistance. However, even the best adhesive available cannot make up for a poor fitting joint. The fit of the dry finger joint should be checked before gluing begins.



Problem	Possible cause	Recommendation
Pressed finger joint blanks fall apart	<ul style="list-style-type: none"> ■ Glue penetration into wood is not adequate ■ Temperature is too cold to allow glue to form a reliable bond and chalking occurs 	<ul style="list-style-type: none"> ■ Moisture content of wood is too high (above 15%) ■ Keep boards and surrounding work area above minimum use temperatures
Joint fingers too short or too long	<ul style="list-style-type: none"> ■ If fingers are too long – the fingers must be shortened by increasing the amount of wood the trim saw removes. If the fingers are too short – they must be lengthened by reducing the amount of wood the trim saw removes. 	<ul style="list-style-type: none"> ■ A good finger joint will have no gaps, allowing very little room for excess glue. This is accomplished when the fingers are equal in lamination.
Joint fingers have concave gap on side	<ul style="list-style-type: none"> ■ Cutters were not resharpened according to hook gauge. Cutters have too sharp of a hook angle. 	<ul style="list-style-type: none"> ■ Grind the cutters to match the hook gauge
Joint fingers have convex gap on side	<ul style="list-style-type: none"> ■ Cutter stack moved during setup and rotated too far forward for the correct set-up angle ■ Cutters were not resharpened according to hook gauge or have too blunt of an angle ■ Cutter stack was not pulled up to the alignment post 	<ul style="list-style-type: none"> ■ Reset the head and check alignment of cutter stack ■ Grind the cutters to match the hook gauge ■ Set cutter stacks against the alignment post of the set-up stand