Franklin's recommended assembly adhesives

Adhesive AB
Composition allows for a long assembly time and produces a transparent, flexible bond. Adhesive AB is an excellent choice for bonding to many pre-finished surfaces.

Assembly 65
A very versatile, high solids adhesive for good gap filling; it is widely used for assembly applications and general cabinetry.

Assembly 8 & 8-5%
Specifically designed for use with automatic doweling and dovetailing equipment; its low viscosity allows for appropriate flow through narrow feed lines and injectors.

Assembly 161
Specifically designed for use with automatic doweling equipment; its low viscosity of 160cps (lower than 8-5%) allows for appropriate flow through narrow feed lines and injectors.

Assembly High Tack
Excellent for general assembly as well as edge and face gluing of hardwoods and softwoods.

Assembly T-2A
Well suited for all types of assembly joints including dowels, mortises, splines and plates. It is higher viscosity then some of the other assembly products to prevent running.

Multibond 2000
Produces a water-resistant bond recommended for hot or cold press and assembly gluing applications.

Multibond EZ-1 & EZ-1 HV
A fast setting rate, water-resistance, viscosity stability and high solids percentage make these good assembly glues.

Multibond EZ-2 & EZ-2 HV
Designed for cold press applications where water-resistance is required, but can also be used for assembly gluing applications. They have a low film formation temperature.

ReacTITE 6010
A hot melt for wood assembly applications and bonding decorative moldings where longer open times are desired.

ReacTITE 6025
A hot melt for corner blocks, base rail, miter joints and bonding decorative molding (dentil, rope, fret work and ornamental rosette).

Titebond 50, 50 HV & Regular
Fast-setting, heat-resistant adhesives, best used in assembly and edge and face gluing.

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 assembly 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 on your equipment.*

1.800.877.4583

gluing guide
Adhesives for Assembly

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Franklin Adhesives & Polymers™

Adhesives for Assembly

Franklin Adhesives & Polymers offers a full line of superior-quality assembly glues formulated to meet the demands of your woodworking operation. Many of our products are designed for specific applications including hot melt, finger jointing and automatic dowel insertion. Our products offer varying degrees of open time, cure time and viscosity to match specific application requirements.

The term "assembly gluing" covers a wide range of joint types. Most of these involve gluing side grain to side or end grain. Some joint types include dowel, mortise and tenon, dovetail and miter.

Specific attributes of most of our assembly glues include:

- *High solid content, provides for excellent gap-filling properties and fast setting rates*
- *Wide variety of products designed to provide a range of assembly times and setting speeds to meet customer process needs*
- *Low minimum use temperature*
- *Good heat resistance*
- *Dyed products also available*

Technical Leadership

Our technical team has compiled the information below to obtain the best results when using our adhesives in various assembly applications.

Spread

Adhesive is generally applied by plastic squeeze bottles or brush. It is important to get a uniform coating over the entire gluing surface. In dowel assemblies, the sides of the dowel hole should be evenly coated. The dowel forces glue up the side of the dowel.

Assembly time

Assembly time can vary greatly depending on the adhesive used, glue spread, porosity and moisture content of the gluing stock, environmental conditions, etc. Generally accepted assembly times are less than five minutes.

Minimum temperature

Curing temperatures should be higher than the minimum use temperature of the adhesive. This includes the temperature of the stock to be glued as well as the air and adhesive temperatures.

Joint preparation

Joints should be cut accurately with sharp tools. Joints should fit snugly when assembled and clamped. Adhesives should not be expected to act as gap fillers. Conversely, too tight of a joint may cause the adhesive to be scraped away from the gluing surface during assembly. Dull cutting tools will cause glazed or burnished surfaces, preventing adhesive penetration.

Clamping

A variety of clamps and clamping systems are available for assembly joints. Enough clamping pressure is recommended to provide a thin glue line along the entire surface of the joint. Direct contact of the gluing surfaces is required to obtain maximum strength.

Clamp time

Clamp time is dependent on the adhesive used, species and moisture content of the stock, environmental factors and glue line thickness. Clamp times can range from a few minutes to more than an hour, depending on the above factors. Clamp times should be determined under plant conditions.

Assembly Trouble Shooting Guide

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

	Problem	Possible cause	Recommendation
	**Weak joint**	■ Loose part fit / poor fit ■ Joint design (dowels too short holes too long, etc.) ■ Glue setting too quickly/too slowly ■ Insufficient glue coverage ■ Burnished surfaces ■ Overspray of finish on gluing surface ■ Precure	■ Part should fit snugly but not require undue assembly force ■ Redesign joint, hole shouldn't be more than 1/16 in. or half a cm below dowel ■ Contact your Account Manager ■ Apply uniform coating of glue to all parts of the joint ■ Sharpen cutter blades ■ Remove finish before gluing ■ Decrease assembly time or increase spread
	**Black glue lines**	■ Iron contamination in adhesive	■ Isolate and eliminate contact source of wet adhesive with iron or steel
	**Under cured or frosted glue lines**	■ Low temperature ■ Short clamp time ■ High moisture content	■ Raise plant, wood and/or adhesive temperature ■ Increase clamp time ■ 6-8% moisture content recommended
	**Brilliant white on glue squeeze-out and/or glue line**	■ Chalking caused by low temperatures	■ Raise temperature of plant, wood and adhesive above minimum use temperature of adhesive ■ Consider an alternative adhesive