



3M Industrial Adhesives and Tapes Case Study

FEATURED IN THIS ISSUE: 3M™ JET-WELD™ THERMOSET ADHESIVE SYSTEM

Significant Production Increase for Custom Door Manufacturer

"We have more doors than ever going out every week," reports Matthew Lomastro, Production Manager, Bridgewater Wholesalers, Inc.

Founded in 1982, Bridgewater is a fine millwork supplier headquartered in Branchburg, NJ. The company serves the East Coast from Connecticut to Virginia with products that include custom hollow core doors. "We were completing about 75 custom hollow core doors a week," says Lomastro, "But now with the 3M™ Jet-Weld™ Thermoset Adhesive System, we're up to about 300 a week."

The Jet-Weld Thermoset Adhesive System is a self-contained system that combines the speed of a hot melt

adhesive and bond strength associated with a 2-part structural adhesive.

At Bridgewater the Jet-Weld System from 3M replaced white glue for bonding 1-1/8" square fir reblock strips between hardboard door panels. The Jet-Weld adhesive cartridge is inserted and heated in the 3M Jet-Weld II Applicator. A bead of adhesive is then applied at 250°F to the strip and hardens quickly as it cools, similar to a hot melt adhesive. Clamping time on the door is only five minutes compared to five hours with the white glue.

Hot melt adhesive had also been tried but set too quickly, particularly on longer strips. Lomastro notes,



"Jet-Weld Adhesive doesn't set as quickly as a hot melt. A four-minute open time gives us enough time for even the longest strips, but the system still shortens our production cycle."



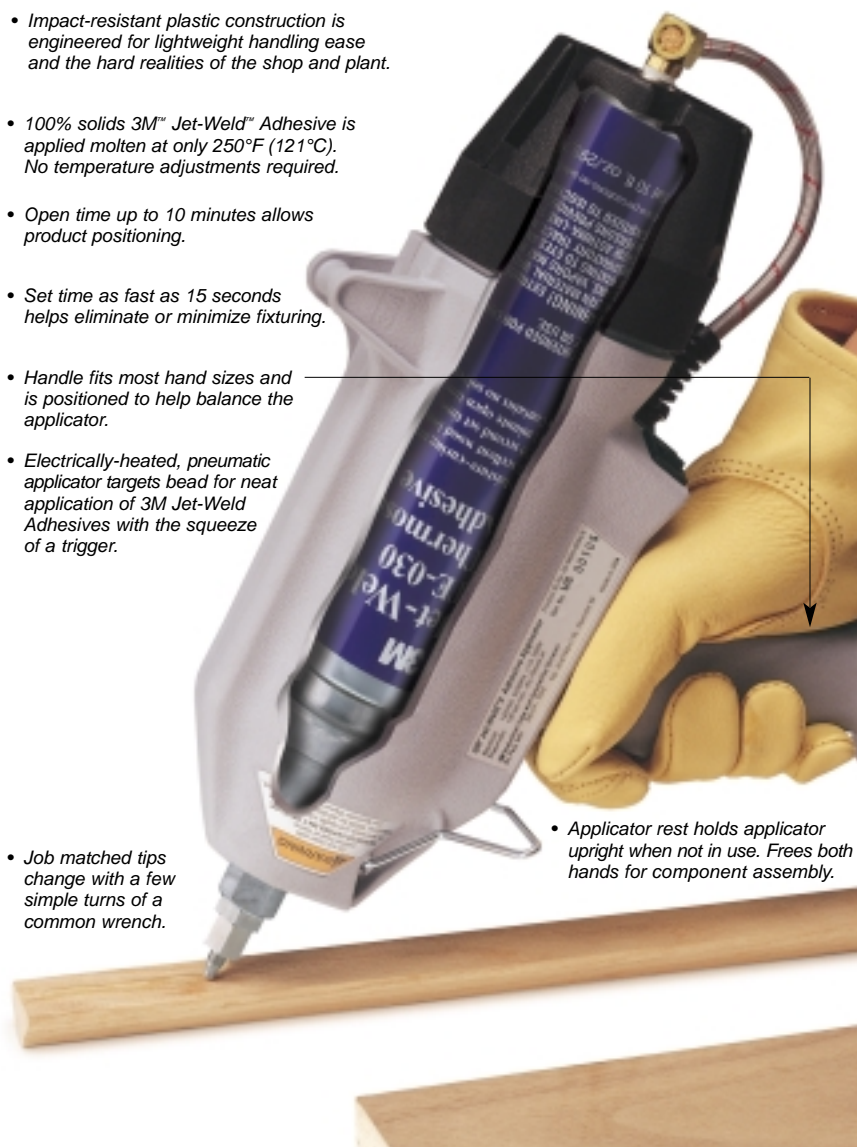
With Jet-Weld Thermoset Adhesive TE-200, the bond line on each door reaches handling strength in about two minutes. Doors are quickly moved out of the way to free up production space. "Clean up is also fast and easy compared to a hot melt," adds Lomastro. "Any squeeze out at the bond line is simply removed with a putty knife while the adhesive is waxy."

"Clean up is also fast and easy..."

Commenting on bond strength, Lomastro says, "Our doors go into expensive homes where customers don't expect problems. Assembly speed is important to us, but so is reliability." Ultimate strength of Jet-Weld Thermoset Adhesive TE-200 is about one ton of holding power. Bond lines are also thin, flexible, and tough for tight part fit, neat appearance, and rugged performance.

To maintain a steady flow of adhesive, cartridges are warmed in a 3M Jet-Weld Pre-heater, so that a new cartridge in the applicator reaches application temperature more quickly. Jet-Weld Thermoset Adhesive TE-200 is one in a line of moisture-curing Jet-Weld formulations. Choices are available for viscosity, open time, handling strength, and a variety of surfaces including wood, plastics and aluminum. All are 100% solids with low volatile organic compounds (VOCs).

3M Jet-Weld Thermoset Adhesive TE-200 is a one-component, moisture curing, urethane adhesive that is applied warm. The adhesive should be preheated in the 3M Jet-Weld II Adhesive Preheater prior to loading into the applicator.



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