PUR

3M **Scotch-Weld**™

Polyurethane Reactive Adhesives
PUR (E-Z)™ and PUR (Jet-Weld™)

Distributed By:

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SERVING INDUSTRY FOR OVER 73 YEARS

Hot melt speed and structural strength performance in the palm of your hand

This single system combines many production benefits typical of hot melt adhesives and bond performance usually associated with two-part structural adhesives.

Fast initial set can help you reduce costs. Fast handling strength helps eliminate or minimize fixturing and speed up assembly.

One-component, moisture-curing formulation eliminates metering, mixing and curing equipment. And 100% solids give you a low-VOC adhesive system with no drying equipment and no attack on plastics.

With the long bonding range and initial repositionability, assembly of complex parts is easier. Bond lines are thin, flexible and tough for improved part fit, appearance and rugged performance.

Combine this versatility with the applicator's portability, and you have a system that can adapt readily to many of your production requirements.

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3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Adhesive Applicator and Adhesives put a powerful production capability into many assembly operations. Bond strength approaches the high end of the performance range, exceeding many conventional hot melts and PVA (polyvinyl acetate) adhesives. Bond wood, plastics, rubber, dissimilar materials, plasticized vinyls, and more. For example, in trade show booth assembly, bond an aluminum bracket to the laminate covering of a honeycomb pane.

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3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Adhesive performs multiple tasks including V-groove bonding at the table joints of decorator tables.

Photo courtesy of The Rose Hill Co., Inc.

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To increase production, 3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Adhesive System bonds fir reblock strips between hardboard door panels. Also improves the bond between weather stripping and a vinyl extrusion.

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In speaker assemblies, flexible, tough bond lines of 3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Adhesive hold dissimilar materials and multiple components.

Photo courtesy of Bose Inc.

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With fast handling strength, 3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Adhesive helps speed up the bonding of interior wood trim to the vinyl sash of high performance gliding windows.

Photo courtesy of Andersen Windows, Inc.

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With 100% solids 3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Adhesive, a manufacturer holds the aesthetic contours of unique bentwood furniture.

Photo courtesy of David Trubridge, designer

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3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Adhesive is easily applied as a bead for bonding wood furniture and cabinet components. Fast handling strength helps speed up production.

Product Information: 3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Adhesives

	Product	Description	Application temperature	Viscosity @250°F (CPS)	Color	Open time	Set time	Shore D	Tensile strength (PSI)	Elongation %	Modulus (PSI)
Adhesives	TE015	• Extrudable with very fast set time • Bond wood and selected plastics	250°F (121°C)	7,000	White/ Off-White	1.5 min.	15 sec.	65	3950	750	2500
	TE030	• Extrudable with fast set time • Bond wood and selected plastics	250°F (121°C)	16,000	White/ Off-White	1 min.	30 sec.	60	3800	725	11,200
	TE031	• Extrudable with fast set time • Bond a wide variety of plastics, including polystyrene and polyacrylic	250°F (121°C)	13,000	White/ Off-White	2 min.	30 sec.	50	3900	725	5600
	TE040	• Extrudable with fast set time • Low viscosity • Strong, flexible bonds • Bond plastics, wood, aluminum, and glass	250°F (121°C)	7,000	White/ Off-White	2 min.	40 sec.	35	2750	860	2850
	TE100	• Extrudable with medium set time • Bond wood and selected plastics • Thin bond lines	250°F (121°C)	7,000	White/ Off-White	2 min.	1 min.	61	4200	675	12,200
	TE200	• Extrudable with fast set time • Low viscosity • Bond wood and selected plastics • Thin bond lines	250°F (121°C)	3,000	White/ Off-White	4 min.	2 min.	60	4000	625	9700
	TS230	• Sprayable/extrudable with long set time • Bond variety of plastics, including polystyrene and polyacrylic • Bond aluminum and glass to plastic and wood	250°F (121°C)	9,000	White/ Off-White	4 min.	2.5 min.	45	3300	700	5400
	TS115 HGS	• Sprayable/extrudable/roll coatable with fast set time • Bond wood, fiber, reinforced plastic and other plastics to themselves, metal or glass	250°F (121°C)	16,000	White/ Off-White	10 min.	1 min.	47	3200	600	3300

Note: The technical information and data on these pages should be considered representative or typical only and should not be used for specification purposes.

Job-matched tips –

1) Threaded cap for sealing tip after use.
2) Extension tip for improved sight line in hard-to-reach areas.
3) .062" tip for low flow applications.
4) .125" tip for high flow applications.

.090" tip standard on 3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Adhesive Applicator.

Container sizes to meet your production volume –

- 10 fl.oz. cartridges
- 2k foil packs
- 5 gallon pail
- 55 gallon drum

Production power of dual technologies in one self-contained system

The easy-to-use and maintain 3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Easy Adhesive Applicator and moisture-curing polyurethane adhesives combine benefits typical of two technologies at a new low dispensing temperature (170°F/77°C):

1. Production benefits typical of hot melt adhesive technology.
   - Fast initial set and handling strength in as few as 5 seconds helps eliminate or minimize fixturing.
2. Performance benefits typical of structural adhesive technology.
   - Greater than 1000 lbs. of overlap shear strength within minutes exceeds strength of conventional hot melt.

Plastic disposable nozzle allows easy, quick changeover of cartridges.


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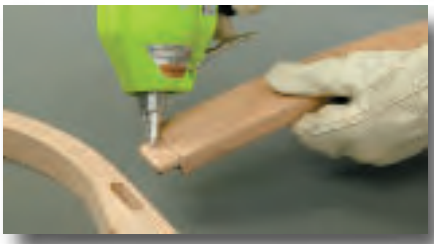
Bond wood or plastic rosettes to wood drawers without fixturing or drying time. Adhesive dispenses warm at 170°F (77°C) and can remain in the applicator at dispensing temperature for up to 40 hours.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Trigger a fast, easy, and neat bead of adhesive from self-contained hand-held applicator at up to 11 pounds per hour.


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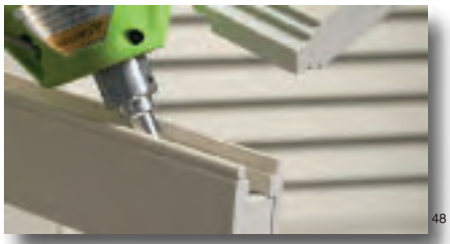
Thin, flexible bond lines help improve the fit, appearance and durability.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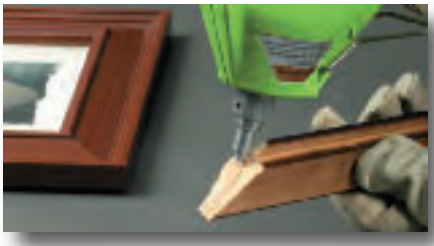
Up to 2.5-minute open time allows positioning of multiple or complex parts.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Assemble miter joints with a tough, flexible bond for long life durability.


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Bond simulated-wood plastic trim to wood cabinet doors with an invisible bond line.


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Assemble mirror components with hot melt adhesive speed and structural strength.

Product information: 3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Easy Adhesives

Product	Description	Viscosity @ 121°C (CPS)	Open Time (Min.)	Set Time (Sec.)	Shore D	Tensile Strength (PSI)	Elongation (%)
17005	• Very fast set time • Thin glue line • Medium open time	28,600	0.75	5	65	3900	725
17010	• Fast set time • Best for bonding wood and plastics • Small-to-medium parts assembly	14,200	0.75	10	35	1055	750
17030	• Medium set time • Low viscosity • Best for bonding wood to select plastics • Thin glue line	15,700	1	30	60	4000	625
17060	• Long open time • Lower viscosity • Thin glue line	9600	2.5	60	30	1625	400

Terminology
Open times and set times are based on a room temperature environment. High temperatures will lengthen open times and set times while lower environmental temperatures will shorten open times and set times.

Adhesive Selection Guide

Substrates	Wood/ hard-board	MDF*	PVC	Poly-styrene (bead board)	Poly-carb-onate[4]	Mela-mine	ABS	FRP-epoxy	Poly-acrylic	Poly-styrene	Fabric/ felt/cork	Leather	SBR	Nitrile Rubber[3]	Neo-prene[3]	Glass/ ceramic	Alumi-num[1, 2]
Wood/ hardboard	17005 17030	17005 17030 17010 17060	17010 17060 17005 17030	17005 17030 17010 17060	17005 17030 17010 17060	17005 17030 17010 17060	17005 17030 17010 17060	17005 17030 17010 17060	17005 17030 17010 17060	17010 17060 17005 17030	17005 17030 17010 17060	17005 17030 17010 17060	17010 17060 17005 17030	17010 17060 17005 17030	17030 17010	17010 17060	17010 17060
MDF*		17005 17030 17010 17060	17010 17060 17005 17030	17005 17030 17010 17060	17030 17060	17030 17060	17005 17030 17010 17060	17005 17030 17010 17060	17005 17030 17010 17060	17010 17060 17005 17030	17005 17030 17010 17060	17005 17030 17010 17060	17030 17060	17005 17030 17010 17060	17030 17010	17010 17060	17010 17060
PVC			17010 17060 17005 17030	17010 17060 17005 17030	17005 17030 17010 17060	17010 17060 17005 17030	17005 17030 17010 17060	17010 17060 17005 17030	17030 17060	17010 17060 17005 17030	17005 17030 17010 17060	17005 17030 17010 17060	17030 17060	17005 17030 17010 17060	17030 17010	17010 17060	17010 17060
Polystyrene (Beadboard)				17005 17030 17010 17060	17005 17030 17010 17060	17010 17060 17005 17030	17005 17030 17010 17060	17005 17030 17010 17060	17030 17060	17010 17060 17005 17030	17005 17030 17010 17060	17005 17030 17010 17060	17030 17060	17010 17060 17005 17030	17030 17010	17010 17060	17010 17060
Polycarb-onate[4]					17005 17030 17010 17060	17010 17060 17005 17030	17005 17030 17010 17060	17005 17030 17010 17060	17030 17060	17010 17060 17005 17030	17005 17030 17010 17060	17030 17010	17030 17060	17005 17030 17010 17060	17030 17010	17010 17060	17010 17060
Melamine						17010 17060 17005 17030	17010 17060 17005 17030	17010 17060 17005 17030	17030 17060	17010 17060 17005 17030	17010 17060 17005 17030	17010 17060 17005 17030	17010 17060 17005 17030	17010 17060 17005 17030	17030 17010	17010 17060	17010 17060
ABS							17005 17030 17010 17060	17005 17030 17010 17060	17030 17060	17010 17060 17005 17030	17005 17030 17010 17060	17010 17060 17005 17030	17010 17060 17005 17030	17010 17060 17005 17030	17030 17010	17010 17060	17010 17060
FRP-epoxy								17005 17030 17010 17060	17030 17060	17010 17060 17005 17030	17005 17030 17010 17060	17010 17060 17005 17030	17010 17060 17005 17030	17010 17060 17005 17030	17030 17010	17010 17060	17010 17060
Polyacrylic									17030 17060	17010 17060 17005 17030	17030 17060	17030 17060	17030 17060	17030 17060	17030 17010	17010 17060	17010 17060
Polystyrene										17010 17060 17005 17030	17010 17060 17005 17030	17010 17060 17005 17030	17010 17060 17005 17030	17010 17060 17005 17030	17030 17010	17010 17060	17010 17060
Fabric/ felt/cork											17005 17030 17010 17060	17010 17060 17005 17030	17010 17060 17005 17030	17030 17060	17030 17010	17010 17060	17010 17060
Leather												17005 17030 17010 17060	17030 17060	17030 17060	17030 17010	17010 17060	17010 17060
SBR													17030 17060	17030 17060	17030 17010	17010 17060	17010 17060
Nitrile Rubber[3]														17030 17060	17030 17010	17010 17060	17010 17060
Neoprene[3]															17030 17010	17010 17060	17010 17060

1 Not recommended for bonding metal, glass and ceramic to itself or each other due to low moisture transmission of substrates.

2 Abrade uncoated aluminum. Not for use on uncoated aluminum subjected to hot/humid conditions.

3 Rubbers vary in composition. Adhesion to specific rubber must be evaluated by user.

4 Adhesive may partially delaminate from polycarbonate at elevated temperatures.

For polypropylene and polyethylene, corona or plasma treatment may improve adhesion.

*Medium Density Fiberboard

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