English-US

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Technical Data Sheet

3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Easy 250 Wood Adhesive EZ250030

Product Details

Regulatory Info/SDS

Product Description

3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Easy 250 Plastic Adhesives are 100% solid, warm temperature applied, moisture curing urethanes. These products bond a wide variety of plastics and wood to themselves and to metal and glass.

3M™ Scotch-Weld™ Polyurethane Reactive(PUR) Easy 250 Plastic Adhesive EZ250030 is a fast setting adhesive ideal for bonding many plastics including polystyrene and polyacrylic.

Product Features

- 100% solids
- Moisture curing urethane
- One component
- Rapid rate of strength build up
- Open time from 2 - 4 minutes
- Set times from 30 - 150 seconds

Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Uncured Physical Properties

Attribute Name	Temperature	Value
Color (solid)		White/Off-White
Viscosity	121 °C (250 °F)	13,000 cP [1]
Density (molten)		8.7 lb/gal

[1] Measured on Brookfield viscometer with Thermosel using spindle #27

Typical Mixed Physical Properties

Attribute Name	Value
Open Time	2 min [1]
Time to Handling Strength	30 s [2]

[1] Max time allowed after applying adhesive to a substrate before bond must be closed and fixed. Cure times approximate and depend on adhesive temperature. Hotmelts: The approx. bonding range of a 3.2 mm (1/8 in) bead of molten adhesive on a non-metallic surface.

[2] Min time between bond creation and ability to support a 34 kPa (5 psi) tensile load. Open and set times determined by RT environment. Higher temps will lengthen open and set times, while lower temperatures will shorten open time and set time.

Typical Cured Characteristics

Temperature: 23 °C (73 °F)

Attribute Name	Test Method	Value
Shore D Hardness	ASTM D2240	50

Typical Performance Characteristics

180° Peel Adhesion

Temperature: 25 °C (77 °F)
Dwell Time: 168 h

Substrate	Value
ABS	83 lb/in width (Cotton duck failed during testing) [1]
Acrylic (PMMA)	75 lb/in width (Cotton duck failed during testing) [1]
Aluminum	N/R lb/in width [1]
Glass	N/R lb/in width [1]
Polycarbonate (PC)	95 lb/in width (Cotton duck failed during testing) [1]
Polyvinyl chloride (PVC)	100. lb/in width (Cotton duck failed during testing) [1]

[1] N/R – Not Recommended. 25 x 203 mm (1 x 8 in) flexible cotton duck (canvas) bonded to rigid 25 x 102 x 3.2 mm (1 x 4 x 0.125 in) substrates. Jaw separation 51 mm/min (2 in/min).
Bonds were prepared using the suggested procedure for the particular substrate tested.

Attribute Name	Test Method	Dwell Time	Temperature	Value
Elongation at Break	ASTM D638, ISO 527	7 d	23 °C (73 °F)	725 % [1]
Tensile Strength at Break	ASTM D638, ISO 527	7 d	23 °C (73 °F)	3,900 lb/in² [1]
Application Temperature				121 °C (250 °F)

[1] Die C, measured on 0.3 - 0.4 mm (0.011 - 0.017 in) thick films

Handling/Application Information

Directions for Use

Apply to clean, dry surfaces. Remove oil, grease and other contaminants by wiping with isopropyl alcohol.* For fiber reinforced plastics and other materials that are often contaminated with mold release agents, it is recommended that the surface be solvent wiped, abraded and solvent wiped.* For additional information, see section on surface preparation. After heating to recommended application temperature, apply adequate amount of 3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Easy 250 Plastic
Adhesive to one of the substrates to be bonded. Join the substrates within the adhesives specified open time and hold/fixture the bonded part until the adhesive has adequately set. Do not use to bond metal or glass to itself or each other or cure will not occur due to low moisture vapor transmission of the substrate.

(Important: Adhesive heated at application temperature for more than 16 hours should be discarded.)

*Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer’s precautions and directions for use.

Cleanup: Allow products to solidify. Remove uncured waxy material (usually within the first 20 minutes after application) by scraping with a putty knife or similar tool. For cured material, remove by cutting or sanding. Do not use heat or flame to remove adhesive.

Cure Time: The cure rate will vary depending on air temperature, relative humidity, substrate type and bond line thickness. Cure rate is more rapid on wood (moisture rich substrate) than on plastic.

Surface Preparation

All wood should be dry and free of contaminants such as sawdust, dirt or other substances that may interfere with the adhesive bonding process. If the surface to be bonded contains a coating or finish, bonds should be made and evaluated to
ensure proper adhesion. It may be necessary to evaluate other 3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Easy 250 Plastic Adhesive products that are better suited to bond plastic surfaces.

Dispensing Equipment

3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Easy 250 Plastic Adhesive Cartridges can only be dispensed through the 3M™ Scotch-Weld™ Polyurethane Reactive Adhesive Applicator or the 3M™ Scotch-Weld™ Polyurethane Reactive (PUR) Easy 250 Adhesive Applicator. Other container sizes can be dispensed through bulk equipment specifically designed for use with hot melt polyurethane reactive adhesives (PUR). For more information on PUR application equipment, contact your local 3M sales representative. All equipment must be used in strict accordance with the recommendations of the manufacturer.
Warning: Do not use Scotch-Weld polyurethane reactive (PUR) easy 250 plastic adhesive above 275°F (135°C) and should not be applied to substrates that exceed 275°F (135°C).
Caution: Wear heat resistant gloves and safety glasses when handling.

Storage and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original packaging, out of direct sunlight. For best performance, use unopened cartridges within 12 months and other sizes within 6 months from date of manufacture.

Available Sizes - Detailed

Available Package Sizes:
1/10th gallon cartridge[1] [2] 2 Kilo bag[3] 5 gallon pail 55 gallon drum
10 fluid oz/295ml 2 Kgs(4.4 lb) 36 pounds (16.3 kg) 400 pounds (181.4 kg)
Thread size for nozzle M15 X 1.5 Slug OD. – 5.0in (127 mm) Pail ID. – 11.25in (285.8mm) Drum ID. – 23.6in (600.5 mm) Pail Ht. – 13.5in (343 mm) Drum Ht. – 34.8in (883.9 mm)
[1]5 -1/10th gallon cartridges per case.
[2]10 disposable plastic nozzles are supplied with each case of adhesive.
[3]6 -2kg bags per case.

Approximate Coverage per container:
(Linear ft per container based on 1/8in dia. Bead size)
1/10th gallon cartridge 2 Kilo bag 5 gallon pail 55 gallon drum
250ft (76.2m) 1650ft (502.9m) 13,500ft (4114.8m) 170,200ft (51876.9m)

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577

Automotive Disclaimer

Select Automotive Applications:
This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

Information

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ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

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