

December, 2014

## 3M™ Double Coated Polyethylene Foam Tape 4492W

### Product Description

3M™ Double Coated Polyethylene Foam Tapes 4492W combine a conformable closed cell foam with a high strength acrylic adhesive that provides good initial tack and offers high ultimate adhesion to a wide variety of surfaces.



# 3M™ Double Coated Polyethylene Foam Tape 4492W

## 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 Physical Properties

Property	Values	
Thickness: Nominal	0.8 mm	31 mil
Thickness Tolerance	0.6 to 1 mm	25 to 45 mil
Adhesive Type	430 (Acrylic Adhesive)	
Adhesive Carrier	Closed Cell Crosslinked Polyethylene Foam	
Foam Color	White	
Foam Density	95 kg/m <sup>3</sup>	6 lb/ft <sup>3</sup>
Liner	Paper	
Liner Thickness	0.08 mm	3 mil
Liner Color	Tan	

## Typical Performance Characteristics

Property	Values		Method	Dwell/Cure Time	Substrate	Notes
90° Peel Adhesion	14 N/cm	128 oz/in	ASTM D3330	72 hr @ Room Temperature	Stainless Steel	Jaw Speed 12 in./min (305 mm/min)
Normal Tensile (T-Block)	415 kPa	60 lb/in <sup>2</sup>	ASTM D897	72 hr		1 in. <sup>2</sup> (6.45 cm <sup>2</sup> ), Jaw Speed 2 in./min. (50 mm/min.)
Dynamic Overlap Shear	380 kPa	55 lb/in <sup>2</sup>	ASTM D1002			1 in. <sup>2</sup> (6.45 cm <sup>2</sup> ) overlap, Jaw Speed 0.5 in./min., (12.7 mm/min.)
Cold Flex @ -20°F (-30°C)	No cracking when flexed around a 1/4 in (6.4 mm) mandrel.					

Relative High Temperature Operating Ranges		Test Condition
82 °C	180 °F	Short Term (minutes, hours)
70 °C	158 °F	Long Term (days, weeks)

Property: Relative High Temperature Operating Ranges

# 3M™ Double Coated Polyethylene Foam Tape 4492W

## Typical Performance Characteristics (continued)

Static Shear	Test Condition
1000 g	Room Temperature
500 g	@ 49°C (120°F)
250 g	@ 70°C (158°F)

Property: Static Shear

Method: ASTM D3654

notes: 1/2 in.<sup>2</sup> (3.23 cm<sup>2</sup>), will hold weight listed for 10,000 minutes

## Solvent Resistance

No apparent degradation when exposed to splash testing of typical hydrocarbon solvents.

(Splash testing cycle - 20 seconds submersion, 20 sec. air dry, 3 cycles)

## Available Sizes

Property	Values		Notes
Standard Roll Length	65.8 m	72 yd	
Maximum Length	160 m	175 yd	
Available Width	3.2 to 1219 mm	1/8 - 48 in	Slit rolls 1/8 in. (3.2 mm) up to 1/2 in. (12.7 mm) are only available in standard lengths.
Normal Slitting Tolerance	±0.8 mm	±1/32 in	

## Typical Environmental Performance

### U.V. Resistance

No apparent degradation when exposed for seven days in U.V. chamber.

## Handling/Application Information

### Application Ideas

- The foam construction makes these products ideal for many joining, mounting, gasketing, and sealing applications involving irregular surfaces.
- 3M™ Double Coated Polyethylene Foam Tapes 4492 and 4496 are formulated for more demanding indoor and moderate outdoor general purpose mounting and joining applications.
- Application ideas for these tapes include:
  - Signs, Nameplates and Plaques
  - Point of Purchase and other Displays
  - Plastic Hooks, Racks and Dispensers
  - Wire and Cable Clips
  - Appliance, Display Case and Electronic Equipment Trim

## Handling/Application Information (continued)

### Application Techniques

- Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improve bond strength.
- To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Typical surface cleaning solvents are isopropyl alcohol and water (rubbing alcohol) or water. Note: Be sure to follow the manufacturer’s precautions and directions for use when using cleaning solvents.
- Ideal tape application temperature range is 70°F to 100°F (21°C to 38°C). Initial tape application to surfaces at temperatures below 50°F (10°C) is not recommended because the adhesive becomes too firm to adhere readily. However, once properly applied, low temperature holding is generally satisfactory.

### Application Equipment

To apply adhesives in a wide web format, lamination equipment is required to ensure acceptable quality. To learn more about working with pressure-sensitive adhesives please refer to technical bulletin, Lamination Techniques for Converters of Laminating Adhesives (70-0704-1430-8). For additional dispenser information, contact your local 3M sales representative, or the toll free 3M sales assistance number at 1-800-362-3550.

### Storage and Shelf Life

Product retains its performance and properties for 24 months from date of manufacture when stored in original cartons at 70°F (21°C) and 50% relative humidity.

### Trademarks

3M is a trademark of 3M Company.

### References

Property	Values
3m.com Product Page	<a href="https://www.3m.com/3M/en_US/company-us/all-3m-products/-/3M-Double-Coated-Polyethylene-Foam-Tape-4492/?N=5002385+3293242406&amp;rt=rud">https://www.3m.com/3M/en_US/company-us/all-3m-products/-/3M-Double-Coated-Polyethylene-Foam-Tape-4492/?N=5002385+3293242406&amp;rt=rud</a>
Safety Data Sheet (SDS)	<a href="https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=4492W">https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=4492W</a>

### Family Group

	4462W	4462B	4466W	4466B	4492W	4492B	4496W	4496B
Relative High Temperature Operating Ranges (°C) Test Condition: Short Term (minutes, hours)	70	70	70	70	82	82	82	82
Relative High Temperature Operating Ranges (°C) Test Condition: Long Term (days, weeks)	49	49	49	49	70	70	70	70
Thickness: Nominal (mm)	0.8	0.8	1.6	1.6	0.8	0.8	1.6	1.6
Thickness Tolerance (mm)	0.6 to 1	0.6 to 1	1.4 to 2	1.4 to 2	0.6 to 1	0.6 to 1	1.4 to 2	1.4 to 2

Table continued on next page

## 3M™ Double Coated Polyethylene Foam Tape 4492W

### Family Group (continued)

	4462W	4462B	4466W	4466B	4492W	4492B	4496W	4496B
Adhesive Type	745 (Rubber Adhesive)	745 (Rubber Adhesive)	745 (Rubber Adhesive)	745 (Rubber Adhesive)	430 (Acrylic Adhesive)	430 (Acrylic Adhesive)	430 (Acrylic Adhesive)	430 (Acrylic Adhesive)
Adhesive Carrier	Closed Cell Crosslinked Polyethylene Foam	Closed Cell Crosslinked Polyethylene Foam	Closed Cell Crosslinked Polyethylene Foam	Closed Cell Crosslinked Polyethylene Foam	Closed Cell Crosslinked Polyethylene Foam	Closed Cell Crosslinked Polyethylene Foam	Closed Cell Crosslinked Polyethylene Foam	Closed Cell Crosslinked Polyethylene Foam
Foam Color	White	Black	White	Black	White	Black	White	Black
Liner	Paper	Paper	Paper	Paper	Paper	Paper	Paper	Paper
Liner Thickness (mm)	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Liner Color	White	White	White	White	Tan	Tan	Tan	Tan

### ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

### Information

**Technical Information:** The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

**Product Selection and Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

**Warranty, Limited Remedy, and Disclaimer:** Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

**Limitation of Liability:** Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

