3M™ Single-Coated Urethane Foam Tape 4108

Last Revision Date: May, 2022

Product Description

3M™ Single-Coated Foam Tapes will adhere to a variety of substrates, including latex-painted wood, lacquered wood, enameled steel, glass, aluminum, stainless steel, acrylic, ABS, and PVC (non-plasticized) as tape adhesion is typically satisfactory within 20 minutes and continues to build with additional time.

Product Features

3M™ Urethane Foam Tapes Series 4100 are a natural-white, firm, high-density, open-cell foam with pressure-sensitive adhesive on one side. The acrylic adhesive offers high initial quick stick to many types of surfaces along with excellent shear strength and high temperature performance. The adhesive is protected by a 0.003 inch (0.08 mm) thick white, silicone treated paper liner and has a firm rigid open cell urethane that offers excellent cushioning characteristics while allowing air or gas vapors to pass through the open cells. This product is placed on a 1.5 in. wide common core when the tape is 3/4 in. or less in width. Skip slitting is also used for roll stability on these narrow sizes. Note: 3M urethane foam tape series 4100 may turn yellow when exposed to light. Such yellowing affects only the appearance and not the physical performance of the tapes.

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	Additional Information
Adhesive Type	350*	
Liner Thickness	0.08 mm	
Color	Natural-white	
Liner Color	White	View
Test Name: Primary		
Thickness	3.2 mm	
Thickness	125 mil	
Thickness Tolerance	15 %	

Density	256 kg/m³	View
Test Method: ASTM D3574 Notes: Foam with adhesive		
Density	16 lb/ft³	
Liner Thickness	3 mil	
Shore 00 Hardness	75	View
Test Method: ASTM D2240 Notes: Foam with adhesive		
*Note	* 3M™ Adhesive 350 is a medium-firm acrylic adhesive that provides a continuation of high wet grab and initial adhesion.	
Compression Deflection: 25% Compression	41.4 kPa	View
Test Method: ASTM D3574		
Compression Deflection: 25% Compression	6 lb/in²	View
Test Method: ASTM D3574		
Mold and Mildew Resistance	No growth after 28 days	View
Test Method: ASTM G21 Test Name: Foam with Adhesive		

Typical Performance Characteristics

Property	Values	Additional Information
Tensile Strength	895 kPa	View
Test Method: ASTM D3574 Notes: Die “A”		
Tensile Strength	130 lb/in²	View
Test Method: ASTM D3574 Notes: Die “A”		
Elongation	80 %	View

Test Method: ASTM D3574

Notes: Die “A”

Short Term Temperature Resistance	350 °F
Short Term Temperature Resistance	177 °C
Long Term Temperature Resistance	93 °C
Long Term Temperature Resistance	200 °F

Temperature Resistance	Cold flex at -18 °C	View

Notes: No cracks. Tape slowly bent around a 1/4 in. diameter mandrel.

Temperature Resistance	Cold flex at 0 °F	View

Notes: No cracks. Tape slowly bent around a 1/4 in. diameter mandrel.

Compression Set	8 %	View

Test Method: ASTM D1667

Available Sizes

Property	Values	Additional Information
Standard Roll Length	32.9 m	
Standard Roll Length	36 yd	
Roll Diameter	380 mm	
Roll Diameter	15 in	
Maximum Length	45.7 m	
Maximum Length	50 yd	

Minimum Available Width	6 mm
Minimum Available Width	0.25 in
Maximum Available Width	1168 mm
Maximum Available Width	46 in
Normal Slitting Tolerance	± 0.8 mm
Normal Slitting Tolerance	± 1/32 in

Electrical and Thermal Properties

Property	Values	Additional Information
Thermal Conductivity	0.066 W/m/K	View
Test Method: ASTM C518		
Thermal Conductivity	0.5 (btu-in)/(h-ft²-°F)	View
Test Method: ASTM C518		
Surface Resistivity	6 x 10^14 Ω	View
Test Method: ASTM D257 Test Name: Non-Adhesive Side		
Surface Resistivity	1 x 10^15 Ω	View
Test Method: ASTM D257 Test Name: Adhesive Side		
Water Absorption: 30% Compression	open cell - NA % by Volume	View
Test Method: ASTM D1056		

Typical Environmental Performance

*Visual observations of tape bonded to steel panels and immersed totally in solvent/fuel for 24 hours.

Storage and Shelf Life

Store in the original cartons at 60-80°F (15-27°C) and 50% relative humidity.
Shelf life is 24 months from date of manufacture.

Industry Specifications

FMVSS 302
FAR 25.853 B-2
FAR 25.853 B-3

Bottom Matter

3M
Industrial Adhesives and Tapes Division
3M Center, Building 21-1W-10, 900 Bush Avenue
St. Paul, MN 55144-1000
800-362-3550 ● 877-369-2923 (fax)
www.3M.com

Trademarks

Automotive Disclaimer

Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, including, but not limited to, automotive electric powertrain battery or high voltage applications. This product does not fully adhere to typical automotive design or quality system requirements, such as IATF 16949 or VDA 6.3. This product may not be manufactured in an IATF certified facility and may not meet a Ppk of 1.33 for all properties. The product may not undergo an automotive production part approval process (PPAP). Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's automotive application and for conducting incoming inspections before use of the product. Failure to do so may result in injury, death, and/or harm to property. No written or verbal statement, report, data or recommendation by 3M related to automotive use of the product shall have any force or effect unless in an agreement signed by the Technical Director of 3M's Automotive Division. Customer assumes all responsibility and risk if customer chooses to use this product in an automotive electric powertrain battery or high voltage application, and 3M will not be liable for any loss or damage arising from or related to the 3M product or customer's use of the product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity or recall costs), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability. In no event shall 3M be liable for any damages in excess of the purchase price paid for the product.
NOTWITHSTANDING ANY OTHER STATEMENT TO THE CONTRARY, 3M MAKES NO REPRESENTATIONS, WARRANTIES OR CONDITIONS WHATSOEVER, EXPRESS OR IMPLIED, REGARDING THE PRODUCT IF USED IN AN AUTOMOTIVE ELECTRIC POWERTRAIN BATTERY OR HIGH VOLTAGE APPLICATION, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY ON PERFORMANCE, LONGEVITY, SUITABILITY, COMPATIBILITY, OR INTEROPERABILITY, OR 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.

Handling/Application Information

Application Techniques

● Bond strength is dependent upon the amount of adhesive-to-surface contact. Firm application pressure develops better adhesive contact and helps improve bond strength.

● To obtain optimum adhesion, the bonding surface must be clean, dry, and well unified. Some typical surface cleaning solvents are isopropyl alcohol and heptane.*

*Be sure to follow the solvent manufacturer's precautions and directions for use when handling 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.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40069504/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=4108

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.

Disclaimer: 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit www.3M.com.