

3M™ Double Coated Urethane Foam Tape 4016

Last Revision Date: April, 2009

Product Description

3M™ Double Coated Urethane Foam Tapes are conformable foams that offer high shear strength with a high temperature holding acrylic adhesive system for bonding to various types of surfaces for mounting, joining and holding.


Product Features

- The natural colored urethane foam tape products vary in color from white to light yellow. The color will change to light yellow upon exposure to sunlight (ultraviolet radiation). This color change is normal and does not affect tape performance.

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	100	
Adhesive Carrier	Polyurethane Foam	
Liner Thickness	0.08 mm (3 mil)	
Color	Natural	
Liner Color	Green Plaid	View 
Test Name: Primary		
Thickness: Nominal	1.6 mm (62.5 mil)	
Thickness Tolerance	1.142 to 2.03 mm (45 to 80 mil)	
Thickness: Nominal	62.5 mil	

Thickness Tolerance	45 to 80 mil
Foam Density	175 kg/m ³ (11 lb/ft ³)
Foam Density	11 lb/ft ³
Liner Thickness	3 mil

Typical Performance Characteristics

Property	Values	Additional Information
Normal Tensile	345 kPa (50 lb/in ²)	View 
Notes: ("T" Block); 1 in ² (6.45 cm ²); Jaw Speed 2 in/min (50 mm/min)		
Normal Tensile	50 lb/in ²	View 
Notes: ("T" Block); 1 in ² (6.45 cm ²); Jaw Speed 2 in/min (50 mm/min)		
Tensile Strength	965 kPa (140 lb/in ²)	
Tensile Strength	140 lb/in ²	
Elongation at Break	100 %	
Short Term Temperature Resistance	380 °F (193 °C)	
Short Term Temperature Resistance	193 °C	
Long Term Temperature Resistance	104 °C (220 °F)	
Long Term Temperature Resistance	220 °F	
Static Shear	1500 g (1000 g, 750 g, 750 g)	

Static Shear	1000 g	
Static Shear	750 g	
Static Shear	750 g	
Solvent Resistance	No apparent degradation when exposed to splash tests of most hydrocarbon solvents.	
UV Resistance	No apparent degradation when exposed to 7 days in U.V. chamber.	
Cold Flex	No cracking when flexed around a 1/4 in (6.4 mm mandrel).	View 
Temp C: -30C Temp F: -20F		

Available Sizes

Property	Values	Additional Information
Note	Subject to Minimum Order Requirements	
Standard Roll Length	32.9 m (36 yd)	
Standard Roll Length	36 yd	
Maximum Length	91 m (100 yd)	
Maximum Length	100 yd	
Available Width	1168 mm (46 in)	
Available Width	46 in	
Normal Slitting Tolerance	±0.8 mm	

Normal Slitting Tolerance	±1/32 in
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Electrical and Thermal Properties

Property	Values	Additional Information
Dielectric Strength	8 to 12 V/μm	
Thermal Conductivity	0.062 W/m/K (0.036 (btu-in)/(h-ft ² -°F))	
Thermal Conductivity	0.036 (btu-in)/(h-ft ² -°F)	

Storage and Shelf Life

Store in original cartons at 70°F (21°C) and 50% relative humidity.

To obtain best performance, use these products within 24 months from date of manufacture.

Recognition/Certification

MSDS: 3M has not prepared MSDSs for these products which are not subject to the MSDS requirements of the Occupational Safety and Health Administration's Hazard Communication Standard, 29 C.F.R. 1910.1200(b)(6)(v). When used under reasonable conditions or in accordance with the 3M directions for use, these products should not present a health and safety hazard. However, use or processing of the products in a manner not in accordance with the directions for use may affect their performance and present potential health and safety hazards.

TSCA: These products are defined as articles under the Toxic Substances Control Act and therefore, are exempt from inventory listing requirements.

Bottom Matter

3M

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Trademarks

3M is a trademark of 3M Company.

Handling/Application Information

Application Examples

The urethane foam tapes are generally ideal for interior applications or for exterior applications where the tape will be protected from the environment. The urethane foam is open cell.

3M™ Double Coated Urethane Foam Tape 4016 – Mount interior signs and nameplates

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 heptane.

- 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.

*Note: Be sure to follow the manufacturer's precautions and directions for use when using solvents.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~//3M-Double-Coated-Urethane-Foam-Tape-4016/?N=5002385+3293242046&rt=rud
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=4016

Family Group

Link Tags:



Products	Adhesive Type	Adhesive Carrier	Liner Thickness	Color	Liner Color	Thickness: Nominal	Thickness Tolerance	Short Term Temperature Resistance	Long Term Temperature Resistance
4032	100	Polyurethane Foam	0.08 mm	Natural	Green Plaid	0.8 mm	0.64 to 1.02 mm	193 °C	220 °F
4008	100	Polyurethane Foam	0.08 mm	Natural	Green Plaid	3.2 mm	2.79 to 3.81 mm	193 °C	220 °F
4026	100	Polyurethane Foam	0.08 mm	Natural	Green Plaid	1.6 mm	1.142 to 2.03 mm	193 °C	220 °F
4085	740	Polyurethane Foam	0.08 mm	Natural	Tan	1.2 mm	1.00 to 1.45 mm	N/A	N/A
4004	100	Polyurethane Foam	0.08 mm	Natural	Green Plaid	6.4 mm	5.46 to 7.24 mm	193 °C	220 °F
4016	100	Polyurethane Foam	0.08 mm	Natural	Green Plaid	1.6 mm	1.142 to 2.03 mm	193 °C	220 °F
4052	100	Polyurethane Foam	0.08 mm	Black	Green Plaid	0.8 mm	0.64 to 1.02 mm	193 °C	220 °F
4056	100	Polyurethane Foam	0.08 mm	Black	Green Plaid	1.6 mm	1.142 to 2.03 mm	93 °C	125 °F

ISO Statement

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

Information

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