



Double Coated Neoprene Foam Tapes

4962 • 4965 • 4992

Technical Data

June, 1998

Product Description	4962	1/32 in. (0.8 mm)	Double-Coated Neoprene Foam Tape
	4965	3/64 in. (1.2 mm)	Double-Coated Neoprene Foam Tape
	4992	1/32 in. (0.8 mm)	Double-Coated Neoprene Foam Tape

Construction	Products	Tape 4962	Tape 4965	Tape 4992
Adhesive Type:*		A-20	A-20	R-10
Adhesive Carrier:		Neoprene Foam (Closed Cell)	Neoprene Foam (Closed Cell)	Neoprene Foam (Closed Cell)
Thickness: Nominal		1/32 in. 0.031 in. (0.8 mm)	3/64 in. 0.045 in. (1.2 mm)	1/32 in. 0.031 in. (0.8 mm)
Tolerance		0.025-0.038 in. (0.64-0.97 mm)	0.035-0.056 in. (0.99-1.42 mm)	0.025-0.038 in. (0.64-0.97 mm)
Tape Color:		Black	Black	Black
Release Liner:		0.003 in. (0.08 mm) Green Plaid Paper or Green Film	0.003 in. (0.08 mm) Green Plaid Paper or Green Film	0.003 in. (0.08 mm) Green Plaid Paper
Approximate Density: (Foam Only)				
lb./ft. ³		55	45	55
(kg/m ³)		(880)	(720)	(881)

*A-20 is a firm acrylic pressure sensitive adhesive system. It features high ultimate bond strength, very good high temperature and solvent resistance, and very high shear holding power. Bond strength increases substantially with natural aging.

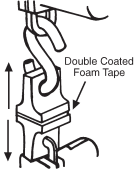
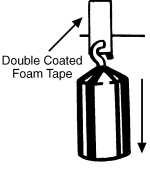
R-10 is a firm rubber-resin pressure sensitive adhesive system. It features high temperature holding power, and high adhesion to a wide variety of surfaces including many low surface energy plastics such as polyethylene and polypropylene.

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Typical Physical Properties and Performance Characteristics

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

Products	Tape 4962	Tape 4965	Tape 4992
Normal Tensile: (T-Block) 1 in. ² (6.45 cm ²) Jaw Speed 2"/min. (50 mm/min.) 	110 psi (760 kPa)	90 psi (620 kPa)	60 psi (415 kPa)
Static Shear: (Measured at various temperatures and gram loadings. (1/2 sq. in. overlap). Will hold listed weight for 1000 hours.) 	72°F (22°C) 1500 g 120°F (49°C) 1000 g 150°F (66°C) 1000 g 200°F (93°C) 750 g	1500 g 1000 g 1000 g 750 g	1500 g 750 g 250 g
Tensile Strength:	400 psi (2758 kPa)	325 psi (2241 kPa)	400 psi (2758 kPa)
Elongation:	325%	350%	325%
Temperature Resistance:			
Short Term (Minutes, Hours)	380°F (193°C)	380°F (193°C)	250°F (121°C)
Long Term (Days, Weeks)	220°F (104°C)	220°F (104°C)	150°F (65°C)
Solvent Resistance:	No apparent degradation when exposed to splash testing of most hydrocarbon solvents.		
UV Resistance:	Tape should not be exposed to UV directly or through glass or other transparent materials.		
Cold Flex at -20°F (-30°C):	No cracking when flexed around a 1/4 in. (6.4 mm) mandrel.		
Thermal Conductivity:	0.099 BTU Ft./Ft. ² Hr. °F (0.171 W/m•K)		
Dielectric Strength:	200-300 volts/mil (200-300 volts/0.025 mm)		
Shelf Life:	18 months from date of manufacture when stored in original cartons at 70°F (21°C) and 50% relative humidity.		

Available Sizes

Roll Length (Subject to minimum order requirements):			
Standard	72 yds. (65.8 m)	36 yds. (32.9 m)	72 yds. (65.8 m)
Maximum	175 yds. (160 m)	144 yds. (131.6 m)	175 yds. (160 m)
Roll Width (Subject to minimum order requirements):			
Minimum	1/4 in., 0.250 in., (6.4 mm)		
Maximum	22 in. (568 mm)		
Slitting Tolerance:	± 1/32 in., ± 0.031 in., ± (0.8 mm)		

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

- Tapes 4962 and 4965 – These products have been designed for general purpose mounting and joining applications where high internal strength is required and are ideal for many applications which involve high continuous shear loads.
- Tape 4992 – This product is designed for general purpose mounting and joining applications involving polyethylene, polypropylene and many other plastics where moderate temperature and shear performance are required. Because of its high internal strength, Tape 4992 performs well under high continuous shear loads.

Note: Tapes 4962, 4965 and 4992 should not be used for joining products to the inside or outside surfaces of transparent substrates (e.g., glass, clear plastic) that are exposed to U.V. light. These tapes should not be exposed to U.V. light because such exposure may cause adhesive failure.

Special Feature

U.L. Listings

UL 94 Listings - File E76581

Category QMFZ2 Flammability Tests for Plastic Materials.

Product – 4965

UL 94 Flame Class – 94HB

UL 746C Listings - File MH17478

Category QOQ W2 Component - Polymeric Adhesive Systems, Electrical Equipment

Product	Substrates	Temp Rating
4965	Phenolic, Enameled Steel	110°C
Neoprene Foam Tape	Aluminum	90°C
	ABS, Polycarbonate, Galvanized Steel	75°C

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4962 • 4965 • 4992

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-362-3550. Address correspondence to: 3M Bonding Systems Division, 3M Center, Building 220-7E-01, St. Paul, MN 55144-1000. Our fax number is 651-733-9175. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-809-750-3000. In Mexico, phone: 5-728-2180.

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ISO 9002

This Bonding Systems Division product was manufactured under a 3M quality system registered to ISO 9002 standards.

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