



General Purpose Double-Coated Tapes

9816L • 9816M • 9816H • 9817L • 9817M • 9817H

Technical Data

June, 2009

Product Description

3M™ General Purpose Double-Coated Tapes 9816L,M,H and 9817L,M,H provide a balance of peel and shear properties with good heat resistance. Immediate bond utilizing only normal nip pressure when laminated to most open cell urethane and closed cell urethane foams.

It bonds well to polyester, polyester urethane, polyethylene, polystyrene, vinyl foams and most rubbers.

Product Construction

Product Number	Tape Thickness w/o liner Mils	Carrier Type	Liner Type	Description	Temperature Resistance		Solvent Resistance	Relative Adhesion	
					Minutes Hours	Days Weeks		HSE	LSE
9816L,M,H	3.5 Mils	Polyester film	9816L - 60# 9816M - 74# Kraft 9816H - 14 pt board	General purpose, high tack, rubber-based adhesive.	150°F (65°C)	120°F (49°C)	Medium	High	Med
9817L,M,H	3.3 Mils	Polyester film	9817L - 60#, 9817M - 74# Kraft, 9817H - 14 pt board	Exposed side is acrylic, liner side is rubber-based. Excellent quick stick and adhesion to high and low energy surfaces.	Acrylic: 220°F (105°C) Rubber: 175°F (80°C)	Acrylic: 175°F (80°C) Rubber: 120°F (49°C)	Medium	High	Med

Features

- Extremely high-bond strength to most surfaces.
- Excellent versatility for lamination to foam material.
- Excellent dimensional stability with polyester carrier.
- Densified Kraft liner for rotary die-cutting.
- Good rotary die-cutting characteristics from the super calendared kraft liner.
- Use where high heat or UV resistance is not required.

Application Ideas

- General purpose foam or rubber laminating (60 in.).
- General purpose lamination of fabricated parts.

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Typical Physical Properties

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

Adhesion: Dynamic Peel - 180° peel (ASTM-D3330 modified), 12 in./min. (305 mm/min.), 2 mil polyester backing.

Surface	72 Hour Room Temperature Dwell			
	3M™ Double-Coated Tape			
	9816L,M,H		9817L,M,H	
	Oz./In.	N/100mm	Oz./In.	N/100mm
Stainless Steel	139	155	60	66
Polypropylene	130	134	21	23
Neoprene	48	53	96	106
72 Hr., 158°F (70°C)	56	62	41	45

Environmental Performance

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

Properties defined are based on the adhesion of impervious faceplate materials to a stainless steel test surface.

Bond Build Up: The adhesive bond increases as a function of time and temperature.

Heat Resistance: 3M tape 9816L,M,H 150°F (65°C)
3M tape 9817L,M,H Acrylic-220°F (105°C) Rubber-175° (80°C)

Low Temp. Resistance: 40°F (4.4°C).

Processing

Die-cutting: Good die-cuttability. Lubricate dies with vanishing oil or similar low lubricants for improved processing.

Roll Laminating: Use rubber over steel roll set up with moderate application pressure. Make adhesive to substrate contact at nip area only.

Typical Static Shear Performance

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

Shear Adhesion: (ASTM D3654, 1" x 1" Overlap with one hour dwell).

Surface		Minutes to Fail	
		3M™ Double-Coated Tape 9816L,M,H	9817L,M,H
Stainless Steel	1000 grams at room temperature	10,000	10,000
	250 grams under high temp. shears	2,500	4,000

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Application Techniques

For maximum bond strength, surface should be thoroughly cleaned and dried. A typical cleaning solvent is heptane or isopropyl alcohol. When using cleaning solvents, vanishing oils, or lubricants, consult the manufacturer's Material Safety Data Sheet for proper handling and storage instructions.

Bond strength may be improved with firm application pressure and moderate heat causing adhesive to flow and develop intimate contact with bonding surface.

This adhesive is good for most indoor applications and can be used for outdoor applications if the adhesive is not directly exposed to the environment.

The temperature resistance is somewhat lower than our typical acrylics. Therefore, temperatures above 150°F (65°C) should be avoided.

Avoid contact with plasticized vinyl or plasticized rubber surfaces. Plasticizers will soften the rubber adhesive.

Storage

Store at room temperature conditions of 72°F (22°C) and 50% relative humidity.

Shelf Life

If stored under proper conditions, product retains its performance and properties for one year from date of manufacture.

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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ISO 9001:2000

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