

July, 2011

3M™ Double Coated Tape 9687C

Product Description

3M™ Double Coated Tapes with 3M™ Adhesive 300MP feature a thin polyester film for dimensional stability and improved handling with ease of die cutting and laminating. 3M adhesive 300MP offers excellent adhesion to many plastics and good shear strength and provides exceptional temperature and chemical resistance that withstands tough application environments. For information on storage and usage tips regarding the 3M adhesive 300MP products, please refer to technical bulletin, 3M™ Laminating Adhesives 300MP – Tips for storing, handling and slitting in roll form (70-0709-3905-6).



Product Features

3M™ Double Coated Tape 9693 clear polyester carrier provides dimensional stability and improved handling with ease of die cutting and lamination compared to adhesive transfer 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		Notes
Total Tape Thickness without liner	0.3 mm	12 mil	
Faceside Adhesive Thickness	0.058 mm	2.3 mil	Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.
Backside Adhesive Thickness	0.2 mm	7.7 mil	Backside adhesive is on the exterior of the roll, exposed when liner is removed.
Carrier Thickness	0.051 mm	2 mil	
Faceside Adhesive Type	300MP		Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.
Backside Adhesive Type	300MP		Backside adhesive is on the exterior of the roll, exposed when liner is removed.
Adhesive Carrier	Clear PET (Polyester)		
Liner	PET		
Liner Thickness	0.051 mm	2 mil	
Liner Color	Clear		

Typical Performance Characteristics

90° Peel Adhesion		Dwell/Cure Time	Substrate
5.5 N/cm	50 oz/in	15 min @ Room Temperature	Stainless Steel
5.8 N/cm	53 oz/in	72 hr @ Room Temperature	Stainless Steel
11.4 N/cm	104 oz/in	72 hr @ 158°F(70°C)	Stainless Steel
5.6 N/cm	51 oz/in	72 hr @ Room Temperature	ABS
6.8 N/cm	62 oz/in	72 hr @ Room Temperature	Polycarbonate (PC)
5.6 N/cm	51 oz/in	72 hr @ Room Temperature	Polyester (PET)

Property: 90° Peel Adhesion
Method: ASTM D3330
Backing: Aluminum Foil

Typical Performance Characteristics (continued)

Relative High Temperature Operating Ranges		Test Condition
149 °C	300 °F	Short Term (minutes, hours)
93 °C	200 °F	Long Term (days, weeks)

Property: Relative High Temperature Operating Ranges

Property	Values		Method	Test Condition	Notes	Dwell/Cure Time	Substrate	Backing
Static Shear	4770 min		ASTM D3654	1000 g @ Room Temperature	0.5 in ² sample size			
180° Peel Adhesion	5.5 N/cm	50 oz/in	ASTM D3330			72 hr @ Room Temperature	Stainless Steel	Aluminum Foil
Less Bonding	Push out test using 500N load cell with 15mm diameter pusher. Test Results - Average load (N) 106.24975 for 3M tape 9693.							

Available Sizes

Property	Values		Width
Note	Subject to Minimum Order Requirements		
Maximum Length	329 m	360 yd	1 in to 54 in
Minimum Available Width	102 mm	4 in	

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Available Sizes (continued)

Property	Values		Width
Maximum Available Width	1372 mm	54 in	
Normal Slitting Tolerance	± 0.8 mm	± 1/32 in	
Core Size (ID)	152.4 mm	6 in	

Handling/Application Information

Application Ideas

- Cellular phone lens attachment
- Foam Lamination
- Nameplates
- Appliques
- Decorate Trim
- Thermal and sound dampening applications in the electronics and appliance industry.

Application Techniques

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improves bond strength.

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

*Carefully read and follow the manufacturer’s precautions and directions for use when working with solvents. These cleaning recommendations may not be compliant with the rules of certain Air Quality Management Districts in California; consult applicable rules before use.

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.

Liner Configure Guide

General purpose steel rule die cutting	58# PCK (Polycoated Kraft)
Steel rule cutting many nameplates on common sheet	83# PCK
Kiss cutting, steel rule	83# PCK
Rotary die-cutting	PET
Selective die-cutting (cut adhesive before laminate)	Double-lined
Thermoforming	HDPE (High density Polyethylene)
Part inspection	HDPE, PET
Embossed metal parts	White PP (polypropylene), HDPE
Metal parts (punch press)	PET

Conditions

Width: 1/2 to 2 in widths

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Adding Liners

1. Rotary processing, tape only, on a densified (outside of #4994) kraft liner. In this process the tape waste will stay with the 83# PCK liner, leaving adhesive die-cuts dispensable from the #4994 (densified kraft) liner.
2. Rotary processing for finished parts. Current process limitations prevent the supply of 3M™ Adhesive 300MP on a DK liner.

Storage and Shelf Life

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

If stored under proper conditions, product retains its performance and properties for 24 months from date of manufacture.

Information

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Trademarks

3M is a trademark of 3M Company.

References

Safety Data Sheet (SDS)

https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=9687C

ISO Statement

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

Recognition/Certification

MSDS: 3M has not prepared a MSDS 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, the 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.

