

May, 2011

3M™ Double Coated Tape 9828

Product Description

3M™ Double Coated Tapes with 3M™ Adhesive 340 provide a combination of high initial adhesion and good shear holding power to a wide variety of materials, including many plastics and foams. These tapes are available with a thin polyester film or a tissue for dimensional stability and improved handling.

Product Features

- 3M™ Adhesive 340 is a medium-firm acrylic that provides a combination of high initial adhesion to a wide variety of materials, including many plastics.
- 3M™ Double Coated Tape 9828 a film carrier, which can add dimensional stability to foams and other substrates. The carrier also provides easier handling during slitting and die-cutting.



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		Attribute Modifier	Notes
Total Tape Thickness without liner	0.084 mm	3.3 mil		
Carrier Thickness	0.013 mm	0.5 mil		
Adhesive Type	340		Faceside	Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.
Adhesive Type	340		Backside	Backside adhesive is on the exterior of the roll, exposed when liner is removed.
Adhesive Carrier	Clear PET (Polyester)			

Adhesive Thickness		Attribute Modifier	Notes
0.038 mm		Backside	The caliper listed is based on a calculation from manufacturing controlled adhesive coat weight. While past data pages have listed nominal thicknesses of 1 and 2 mils, the coat weight (and theoretical caliper) has not changed.
1.5 mil		Backside	Backside adhesive is on the exterior of the roll, exposed when liner is removed.
0.051 mm	2 mil	Faceside	Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.

Property: Adhesive Thickness

Typical Performance Characteristics

Property	Values		Test Condition	Method	Notes	Dwell/ Time	Dwell Time Units	Temp C	Temp F	Environmental Condition	Substrate	Backing
Additional Test notes	Not recommended for high temperature, high shear performance applications. For such applications, please refer to the 3M™ Adhesive 350 and 300MP product families.											
Relative High Temperature Operating Ranges	150 °F		Short Term (minutes, hours)									
Relative High Temperature Operating Ranges	120 °F		Long Term (days, weeks)									

Table continued on next page

Typical Performance Characteristics (continued)

Property	Values		Test Condition	Method	Notes	Dwell Time	Dwell Time Units	Temp C	Temp F	Environmental Condition	Substrate	Backing
Static Shear	31 min		1000 g @ Room Temperature	ASTM D3654	0.5 in² sample size							
Static Shear	3 min		500 g @ 70°C (158°F)	ASTM D3654	0.5 in² sample size							
180° Peel Adhesion	9.9 N/cm	91 oz/in		ASTM D3330	12 in/min (300 mm/min)	72	hr	22C	72F	52%RH	Stainless Steel	Aluminum Foil

90° Peel Adhesion		Dwell/Cure Time	Dwell Time Units	Temp C	Temp F	Substrate	Backing
94 oz/in	10.2 N/cm	72	hr	70C	158F	Stainless Steel	2 mil Aluminum Foil
5.7 N/cm	52 oz/in	72	hr	22C	72F	ABS	2 mil Aluminum Foil
3.5 N/cm	32 oz/in	72	hr	22C	72F	Polypropylene (PP)	2 mil Aluminum Foil
7.3 N/cm	67 oz/in	72	hr	22C	72F	Polycarbonate (PC)	2 mil Aluminum Foil
74 oz/in	8 N/cm	72	hr	22C	72F	Stainless Steel	2 mil PET
6.9 N/cm	63 oz/in	15	min	22C	72F	Stainless Steel	2 mil PET

Property: 90° Peel Adhesion
Method: ASTM D3330
Environmental Condition: 52%RH
notes: 12 in/min (300 mm/min)

Available Sizes

Property	Values		Width	Attribute Modifier
Maximum Length	329 m	360 yd	1/2 to 54 in widths	
Normal Slitting Tolerance	±0.08 mm	±1/32 in		
Core Size	76.2 mm	3 in		ID

3M™ Double Coated Tape 9828

Handling/Application Information

Application Ideas

- General purpose foam lamination
- General purpose lamination for fabricated parts.

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.

Note: Carefully read and follow the manufacturer's precautions and directions for use when working with 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 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).

If additional dispenser information, contact your local 3M sales representative, or the toll free 3M sales assistance number at 1-800-362-3550.

Storage and Shelf Life

It is best to use the rolls as soon as possible after receipt. Ideally, rolls should be laminated to the intended substrates as soon after receipt as possible. Store in original cartons at 70°F (21°C) and 50% relative humidity. When storing rolls, lay them flat in a horizontal position with release treated wafers between the rolls.

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

Trademarks

3M is a trademark of 3M Company.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/-/3M-Double-Coated-Tape-9828?N=5002385+3293242637&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=9828

Family Group

	9824	9828	9828HL	9828PC	9456
Adhesive Thickness (mm) Attribute Modifier: Faceside	0.032	0.051	0.051	0.051	0.051
Adhesive Thickness (mm) Attribute Modifier: Backside	0.032	0.038	0.038	0.038	0.051

Table continued on next page

3M™ Double Coated Tape 9828

Family Group (continued)

	9824	9828	9828HL	9828PC	9456
Adhesive Type Attribute Modifier: Faceside	340	340	340	340	340
Adhesive Type Attribute Modifier: Backside	340	340	340	340	340
Total Tape Thickness without liner (mm)	0.058	0.084	0.084	0.084	0.11
Carrier Thickness (mm)	0.013	0.013	0.013	0.013	
Adhesive Carrier	Clear PET (Polyester)	Clear PET (Polyester)	Clear PET (Polyester)	Clear PET (Polyester)	Tissue

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, 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.

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.

