

November, 2008

3M™ Double Coated Tape 9500PC

Product Description

Finite Element Analysis (FEA) data is available for this product at: 3m.com/FEA

3M™ Double Coated Tape 9500PC features a thin polyester film for dimensional stability and improved handling with ease of die-cutting and laminating. 3M™ Adhesive 350 is a medium-firm acrylic adhesive that provides a combination of high wet grab and initial adhesion and good shear holding power to a wide variety of materials, including many plastics.

Product Features

- 3M™ Adhesive 350 is a firm acrylic adhesive that provides very high adhesion to a wide variety of materials, excellent shear holding power, high temperature resistance and excellent UV resistance.
- 3M adhesive 350 provides exceptional temperature and chemical resistance and withstands tough application environment.
- 3M™ Double Coated Tape 9500PC has a moisture resistant liner which can withstand high humidity conditions with minimal cockling or wrinkling.
- This tape has a film carrier, which can add dimensional stability to 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		Notes
Total Tape Thickness without liner	0.14 mm	5.6 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	0.058 mm	2.3 mil	Backside adhesive is on the exterior of the roll, exposed when liner is removed.
Carrier Thickness	0.025 mm	1 mil	
Faceside Adhesive Type	350		Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.
Backside Adhesive Type	350		Backside adhesive is on the exterior of the roll, exposed when liner is removed.
Adhesive Carrier	Clear PET (Polyester)		
Liner	Polycoated Kraft		
Liner Thickness	0.11 mm	4.5 mil	
Liner Color	Natural		

Typical Performance Characteristics

90° Peel Adhesion		Dwell/Cure Time	Substrate
7.7 N/cm	71 oz/in	15 min @ Room Temperature	Stainless Steel
10.1 N/cm	93 oz/in	72 hr @ Room Temperature	Stainless Steel
13.2 N/cm	121 oz/in	72 hr @ 158°F(70°C)	Stainless Steel
8.1 N/cm	74 oz/in	72 hr @ Room Temperature	ABS
4.8 N/cm	44 oz/in	72 hr @ Room Temperature	Polypropylene (PP)
6.5 N/cm	60 oz/in	72 hr @ Room Temperature	Polycarbonate (PC)
8.4 N/cm	77 oz/in	72 hr @ Room Temperature	Polyester (PET)

Table continued on next page

3M™ Double Coated Tape 9500PC

Typical Performance Characteristics (continued)

90° Peel Adhesion		Dwell/Cure Time	Substrate
3.6 N/cm	33 oz/in	72 hr @ Room Temperature	High Density Polyethylene (HDPE)

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

Relative High Temperature Operating Ranges		Test Condition
177 °C	350 °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	10000 min		ASTM D3654	1000 g @ Room Temperature	0.5 in² sample size			
Static Shear	10000 min		ASTM D3654	500 g @ Room Temperature	0.5 in² sample size			
180° Peel Adhesion	15.3 N/cm	140 oz/in	ASTM D3330			72 hr @ Room Temperature	Stainless Steel	Aluminum Foil

Available Sizes

Property	Values	
Note	Subject to Minimum Order Requirements	
Standard Length	33 m	36 yd
Minimum Available Width	6.35 mm	1/4 in
Maximum Available Width	1220 mm	48 in
Normal Slitting Tolerance	0.8 mm	±1/32 in
Core Size (ID)	76.2 mm	3 in

Maximum Length		Width
132 m	144 yd	1/4in - 1/2in
329 m	360 yd	1/2 in - 48in

Property: Maximum Length

Handling/Application Information

Application Ideas

- Dissimilar materials joining, such as metal to plastic.
- High performance joining and bonding.

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.

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.

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.

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-9500PC?N=5002385+3293241557&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=9500PC

Family Group

	9500PC	9500B	9593	3028EK
Relative High Temperature Operating Ranges (°C) Test Condition: Short Term (minutes, hours)	177	177	177	177
Relative High Temperature Operating Ranges (°C) Test Condition: Long Term (days, weeks)	93	93	93	93

Table continued on next page

3M™ Double Coated Tape 9500PC

Family Group (continued)

	9500PC	9500B	9593	3028EK
Total Tape Thickness without liner (mm)	0.14	0.14	0.089	0.14
Faceside Adhesive Thickness (mm)	0.058	0.058	0.038	0.058
Backside Adhesive Thickness (mm)	0.058	0.058	0.038	0.058
Carrier Thickness (mm)	0.025	0.025	0.013	0.025
Faceside Adhesive Type	350	350	350	350
Backside Adhesive Type	350	350	350	350
Adhesive Carrier	Clear PET (Polyester)	Black PET (Polyester)	Clear PET (Polyester)	Clear PET (Polyester)
Liner	Polycoated Kraft	Polycoated Kraft	55# Densified Kraft	Extensible Kraft
Liner Thickness (mm)	0.11	0.11	0.081	0.14
Liner Color	Natural	Natural	White	White

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.

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.

