



GM Specification 9985281

Annual Test Data

Technical Bulletin

The 3M IATD Quality Laboratory tested the following tapes to the Automotive Specification 9985281. The results of the testing are provided below in the following information. Tapes not listed on this document have not been tested to this specification.

3M™ Double Coated Tape 9490LE
 3M™ Adhesive Transfer Tapes 6035PC and 6035PL
 3M™ Adhesive Transfer Tape 6038PC
 3M™ Adhesive Transfer Tapes 9472, 950, 9672 and 969

3M™ Adhesive Transfer Tapes 9472LE and 9672LE
 3M™ Adhesive Transfer Tape 9627
 3M™ Double Coated Tape 9629PC
 3M™ Double Coated Tape 9495MP
 3M™ Double Coated Tape 9495LE

Approved by IATD Quality:

Kelly R. Wisnewski
 Test Coordinator

3M™ Double Coated Tape 9490LE			Expiration Date: March 31, 2021			
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)
9087066847-002	Stainless Steel	*Adhesive Thickness				
		As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.165	N/A
		90-Day Aged	TAPPI 411 & 9985281	0.09 to 0.175mm	N/A	0.169
		Color	Visual	Translucent	Pass	Pass
		Mass	9985281	0.06 to 0.20 kg/m ²	.174	0.174
		Solids Content	9985281 Appendix A	94.5% min	98.4	98.4
		Adhesion to Steel				
		As Received 3M™ Laminating Adhesive 300MP	ASTM D3330 E	535 N/m min	602	N/A
		90 Day Aged 3M™ Laminating Adhesive 300MP	ASTM D3330 E	420 N/m min	N/A	557
		As Received 3M™ High Performance Acrylic Adhesive 300LSE	ASTM D3330 E	535 N/m min	701	N/A
		90 Day Aged 3M™ High Performance Acrylic Adhesive 300LSE	ASTM D3330 E	420 N/m min	N/A	671
		Shear Adhesion	ASTM D3330 A	3000 mins @ 23°C (73°F)	3000+	3000+
		Liner Removability	ASTM D3330 D	45 N/m max	33	43

*Adhesive thickness values include 0.0127mm carrier film

GM Specification 9985281 – Annual Test Data

3M™ Adhesive Transfer Tape 6035PC and 6035PL					Expiration Date: August 31, 2021	
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)
19253-001 (6035PC) 19284-006 (6035PL)	Stainless Steel	Adhesive Thickness				
		As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.111	N/A
		90-Day Aged	TAPPI 411 & 9985281	0.09 to 0.175mm	N/A	0.120
		Color	Visual	Translucent	Pass	Pass
		Mass	9985281	0.06 to 0.20 kg/m ²	0.127	0.129
		Solids Content	9985281 Appendix A	94.5% min	98.8	99.3
		Adhesion to Steel				
		As Received	ASTM D3330 E & 9985281	535 N/m min	1132	N/A
		90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	N/A	1002
		Shear Adhesion	ASTM D3654 A & 9985281	25 min @ 23°C (73°F)	25+	25+
		Liner Removability				
		6035PC	ASTM D3330 D	45 N/m max	25.6	25.9
6035PL	ASTM D3330 D	45 N/m max	40.3	27.6		

3M™ Adhesive Transfer Tape 6038PC					Expiration Date: July 31, 2021	
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)
19254-011	Stainless Steel	Adhesive Thickness				
		As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.146	NA
		90-Day Aged	TAPPI 411 & 9985281	0.09 to 0.175mm	NA	0.175
		Color	Visual	Translucent	Pass	NA
				Amber	NA	Pass
		Mass	9985281	0.118 to 0.219 kg/m ² *	0.211	0.205
		Solids Content	9985281 Appendix A	94.5% min	98.4	98.9
		Adhesion to Steel				
		As Received	ASTM D3330 E & 9985281	535 N/m min	1249	NA
		90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	NA	1330
		Shear Adhesion	ASTM D3654 A	25 min @ 23°C (73°F)	25+	25+
		Liner Removability	ASTM D3330 D	45 N/m max	30.47	28.37

*Data outside specification limits (0.06 to 0.20 kg/m²). Per waiver, 0.118-0.219 is acceptable

GM Specification 9985281 – Annual Test Data

3M™ Adhesive Transfer Tape 9472, 9672, 950 and 969					Expiration Date: August 31, 2021	
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)
9351-001 (950) 9165-777 (9472) 9266-256 (9672)	Stainless Steel	Adhesive Thickness				
		As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.111	N/A
		90-Day Aged	TAPPI 411 & 9985281	0.09 to 0.175mm	N/A	0.121
		Color	Visual	Translucent	Pass	Pass
		Mass	9985281	0.06 to 0.20 kg/m ²	0.130	0.128
		Solids Content	9985281 Appendix A	94.5% min	98.8	99.1
		Adhesion to Steel				
		As Received	ASTM D3330 E & 9985281	535 N/m min	986.7	N/A
		90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	N/A	1032.9
		Shear Adhesion	ASTM D3654 A & 9985281	25 min @ 23°C (73°F)	25+	25+
		Liner Removability				
		950	ASTM D3330 D	45 N/m max	32.6	35.0
		9472	ASTM D3330 D	45 N/m max	11.2	12.3
		9672	ASTM D3330 D	45 N/m max	13.3	10.9

GM Specification 9985281 – Annual Test Data

3M™ Adhesive Transfer Tape 9472LE, 9672LE			Expiration Date: August 31, 2021			
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)
A013592462012 (9472LE) A050592533001 (9672LE)	Stainless Steel	Adhesive Thickness				
		As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.127	N/A
		90-Day Aged	TAPPI 411 & 9985281	0.09 to 0.175mm	N/A	0.126
		Color	Visual	Translucent	Pass	Pass
		Mass				
		9472LE	998521	0.06 to 0.20 kg/m ²	0.134	0.134
		9672LE	998521	0.06 to 0.20 kg/m ²	0.136	0.135
		Solids Content	9985281 Appendix A	94.5% min	98.4	98.8
		Adhesion to Steel				
		As Received	ASTM D3330 E & 9985281	535 N/m min	693.2	N/A
		90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	N/A	745.7
		Shear Adhesion	ASTM D3654 A	3000 min @ 23°C (73°F)	--*	--*
		Liner Removability				
		9472LE	ASTM D3330 D	45 N/m max	--*	--*
9672LE	ASTM D3330 D	45 N/m max	--*	--*		

*Data pending testing

GM Specification 9985281 – Annual Test Data

3M™ Adhesive Transfer Tape 9627			Expiration Date: September 30, 2021			
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)
20055-004	Stainless Steel	Adhesive Thickness				
		As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.122	N/A
		90-Day Aged	TAPPI 411 & 9985281	0.09 to 0.175mm	N/A	0.122
		Color	Visual	Translucent	Pass	Pass
		Mass	9985281	0.06 to 0.20 kg/m ²	0.133	0.131
		Solids Content	9985281 Appendix A	94.5% min	99.1	99.8
		Adhesion to Steel				
		As Received	ASTM D3330 E & 9985281	535 N/m min	903.7	N/A
		90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	N/A	988.8
		Shear Adhesion	ASTM D3654 A & 9985281	25 min @ 23°C (73°F)	25+	25+
		Liner Removability	ASTM D3330 D	45 N/m max	44.5	32.2

3M™ Double Coated Tape 9629PC			Expiration Date: September 30, 2021			
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)
20123-002	Stainless Steel	Adhesive Thickness				
		As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.108	N/A
		90-Day Aged	TAPPI 411 & 9985281	0.09 to 0.175mm	N/A	0.113
		Color	Visual	Translucent	Pass	Pass
		Mass	9985281	0.06 to 0.20 kg/m ²	0.111	0.114
		Solids Content	9985281 Appendix A	94.5% min	99.3	99.8
		Adhesion to Steel				
		As Received	ASTM D3330 E & 9985281	535 N/m min	854.6	N/A
		90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	N/A	1026.2
		Shear Adhesion	ASTM D3654 A & 9985281	25 min @ 23°C (73°F)	25+	25+
		Liner Removability	ASTM D3330 D	45 N/m max	17.5	12.3

GM Specification 9985281 – Annual Test Data

3M™ Double Coated Tape 9495MP				Expiration Date: October 31, 2021			
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)	
9236067392001	Stainless Steel	Adhesive Thickness					
			As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.143	N/A
			90-Day Aged	TAPPI 411 & 9985281	0.09 to 0.175mm	N/A	0.139
		Color	Visual	Translucent	Pass	Pass	
		Mass	9985281	0.06 to 0.20 kg/m ²	0.150	0.149	
		Solids Content	9985281 Appendix A	94.5% min	98.6	98.8	
		Adhesion to Steel					
			As Received	ASTM D3330 E & 9985281	535 N/m min	754.8	N/A
			90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	N/A	767.1
		Shear Adhesion	ASTM D3654 A & 9985281	25 min @ 23°C (73°F)	25+	25+	
		Liner Removability	ASTM D3330 D	45 N/m max	23.1	24.1	

3M™ Double Coated Tape 9495LE				Expiration Date: December 31, 2020			
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)	
72900618539-005	Stainless Steel	Adhesive Thickness					
			As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.163	N/A
			90-Day Aged	TAPPI 411 & 9985281	0.09 to 0.175mm	N/A	0.164
		Color	Visual	Translucent	Pass	Pass	
		Mass	9985281	0.06 to 0.20 kg/m ²	0.172	0.173	
		Solids Content	9985281 Appendix A	94.5% min	99.2	98.8	
		Adhesion to Steel					
			As Received	ASTM D3330 E & 9985281	535 N/m min	581	N/A
			90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	N/A	592
		Shear Adhesion	ASTM D3654 A & 9985281	3000 min @ 23°C (73°F)	3000+	3000+	
		Liner Removability	ASTM D3330 D	45 N/m max	34.1	36.0	

GM Specification 9985281 – Annual Test Data

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.

ISO 9001: 2015

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001: 2015 standards.



Industrial Adhesives and Tapes Division
Converter Markets
3M Center, Building 225-3S-06
St. Paul, MN 55144-1000
800-362-7427
www.3M.com/converter

3M is a trademark of 3M Company.
© 3M 2018 (Rev. 10/18)
E70-0713-4647-5