



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)	--	--
		Liner Removability	ASTM D3330 D	45 N/m max	33	43

*Adhesive thickness values include 0.0127mm carrier film

**Data will be available by Q3 2020

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3M™ Adhesive Transfer Tape 6035PC and 6035PL					Expiration Date: August 31, 2020	
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)
18158-003 19062-022	Stainless Steel	Adhesive Thickness				
		As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.109	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	0.137	0.133*
		Solids Content	9985281 Appendix A	94.5% min	98.8	99.0*
		Adhesion to Steel				
		As Received	ASTM D3330 E & 9985281	535 N/m min	894.8	N/A
		90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	N/A	753.4*
		Shear Adhesion	ASTM D3654 A & 9985281	25 min @ 23°C (73°F)	25+	25+*
		Liner Removability				
		6035PC	ASTM D3330 D	45 N/m max	13.5	13.5*
		6035PL	ASTM D3330 D	45 N/m max	22.6	18.1

* Heat Age data completed 10/29/2019

3M™ Adhesive Transfer Tape 6038PC					Expiration Date: July 31, 2020	
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)
19013-007	Stainless Steel	Adhesive Thickness				
		As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.164	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 *	0.210	0.214
		Solids Content	9985281 Appendix A	94.5% min	98.8	98.8
		Adhesion to Steel				
		As Received	ASTM D3330 E & 9985281	535 N/m min	1000.266	NA
		90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	NA	1011.066
		Shear Adhesion	ASTM D3654 A	25 min @ 23°C (73°F)	25+	25+
Liner Removability	ASTM D3330 D	45 N/m max	31.558	30.262		

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

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3M™ Adhesive Transfer Tape 9472, 9672, 950 and 969					Expiration Date: August 31, 2020	
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)
8113-343 9007-866 9086-336	Stainless Steel	Adhesive Thickness				
		As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.105	N/A
		90-Day Aged	TAPPI 411 & 9985281	0.09 to 0.175mm	N/A	0.107
		Color	Visual	Translucent	Pass	Pass
		Mass	9985281	0.06 to 0.20 kg/m ²	0.135	0.134
		Solids Content	9985281 Appendix A	94.5% min	99.4	99.7
		Adhesion to Steel				
		As Received	ASTM D3330 E & 9985281	535 N/m min	970.7	N/A
		90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	N/A	983.7
		Shear Adhesion	ASTM D3654 A & 9985281	25 min @ 23°C (73°F)	25+	25+
		Liner Removability				
		950	ASTM D3330 D	45 N/m max	21.7	22.1
		9472	ASTM D3330 D	45 N/m max	14.7	15.0
		9672	ASTM D3330 D	45 N/m max	15.7	14.9

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3M™ Adhesive Transfer Tape 9472LE, 9672LE				Expiration Date: August 31, 2020		
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)
9058591912-003 9025066577-008	Stainless Steel	Adhesive Thickness				
		As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.104	N/A
		90-Day Aged	TAPPI 411 & 9985281	0.09 to 0.175mm	N/A	0.105
		Color	Visual	Translucent	Pass	Pass
		Mass				
		9472LE	998521	0.06 to 0.20 kg/m ²	0.132	0.130
		9672LE	998521	0.06 to 0.20 kg/m ²	0.132	0.130
		Solids Content	9985281 Appendix A	94.5% min	97.8	98.1
		Adhesion to Steel				
		As Received	ASTM D3330 E & 9985281	535 N/m min	705.1	N/A
		90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	N/A	716.2
		Shear Adhesion	ASTM D3654 A	3000 min @ 23°C (73°F)	3000+	3000+
		Liner Removability				
		9472LE	ASTM D3330 D	45 N/m max	32.5	41.8
9672LE	ASTM D3330 D	45 N/m max	33.3	36.8		

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3M™ Adhesive Transfer Tape 9627			Expiration Date: September 30, 2020			
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)
18050	Stainless Steel	Adhesive Thickness				
		As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.123	N/A
		90-Day Aged	TAPPI 411 & 9985281	0.09 to 0.175mm	N/A	0.108
		Color	Visual	Translucent	Pass	Pass
		Mass	9985281	0.06 to 0.20 kg/m ²	0.134	0.134
		Solids Content	9985281 Appendix A	94.5% min	99.8	99.2
		Adhesion to Steel				
		As Received	ASTM D3330 E & 9985281	535 N/m min	801	N/A
		90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	N/A	870
		Shear Adhesion	ASTM D3654 A & 9985281	25 min @ 23°C (73°F)	25+	25+
		Liner Removability	ASTM D3330 D	45 N/m max	43	36

3M™ Double Coated Tape 9629PC			Expiration Date: September 30, 2020			
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)
19002	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	0.100
		Color	Visual	Translucent	Pass	Pass
		Mass	9985281	0.06 to 0.20 kg/m ²	0.114	0.113
		Solids Content	9985281 Appendix A	94.5% min	99.3	99.7
		Adhesion to Steel				
		As Received	ASTM D3330 E & 9985281	535 N/m min	870	N/A
		90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	N/A	801
		Shear Adhesion	ASTM D3654 A & 9985281	25 min @ 23°C (73°F)	25+	25+
		Liner Removability	ASTM D3330 D	45 N/m max	18	14

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3M™ Double Coated Tape 9495MP				Expiration Date: October 31, 2020			
Lot Number	Substrate	Test	Test Method	Specification	As Received	90 Day Shelf Life @35°C (95°F)	
8004065144-003	Stainless Steel	Adhesive Thickness					
			As Received	TAPPI 411 & 9985281	0.09 to 0.165mm	0.137	N/A
			90-Day Aged	TAPPI 411 & 9985281	0.09 to 0.175mm	N/A	0.132
		Color	Visual	Translucent	Pass	Pass	
		Mass	9985281	0.06 to 0.20 kg/m ²	0.145	0.144	
		Solids Content	9985281 Appendix A	94.5% min	99.4	99.3	
		Adhesion to Steel					
			As Received	ASTM D3330 E & 9985281	535 N/m min	646.7	N/A
			90-Day Aged	ASTM D3330 E & 9985281	420 N/m min	N/A	629.8
		Shear Adhesion	ASTM D3654 A & 9985281	25 min @ 23°C (73°F)	25+	25+	
		Liner Removability	ASTM D3330 D	45 N/m max	24.0	22.9	

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	

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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

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