



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, 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	--*		

*Due to COVID-19, Heat Age data will be available by Q4 2020

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	--*
		Color	Visual	Translucent	Pass	NA
				Amber	NA	--*
		Mass	9985281	0.118 to 0.219 kg/m ² **	0.211	--*
		Solids Content	9985281 Appendix A	94.5% min	98.4	--*
		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	--*
		Shear Adhesion	ASTM D3654 A	25 min @ 23°C (73°F)	25+	--*
		Liner Removability	ASTM D3330 D	45 N/m max	30.47	--*

*Due to COVID-19, Heat Age data will be available by Q4 2020

**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, 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	--*
		Color	Visual	Translucent	Pass	--*
		Mass	9985281	0.06 to 0.20 kg/m ²	0.130	--*
		Solids Content	9985281 Appendix A	94.5% min	98.8	--*
		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	--*
		Shear Adhesion	ASTM D3654 A & 9985281	25 min @ 23°C (73°F)	25+	--*
		Liner Removability				
		950	ASTM D3330 D	45 N/m max	32.6	--*
		9472	ASTM D3330 D	45 N/m max	11.2	12.3
		9672	ASTM D3330 D	45 N/m max	13.3	--*

*Due to COVID-19, Heat Age data will be available by Q4 2020

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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

*Due to COVID-19, 2020-21 data will be available by Q4 2020

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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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