



# GMW 14892 Specification Revision July 2023

## Adhesion Requirements for Bonded Interior Parts Automotive Interior Spec Testing

Technical Bulletin rev 2 March 2024

3M tested the following adhesives to the Automotive OEM Spec: GMW 14892 Adhesion Requirements for Bonded Interior Parts. The results of the testing are provided in the following information. Adhesives not listed on this document have not been tested to this spec.

*Automotive specification testing was performed on lab substrates and not on actual automotive production parts. Additional testing by the converter, tier or supplier is needed to show that parts and adhesives meet such specification. Please carefully read the latest version of the automotive specification for further information.*

Revision	Date	Comments
Revision 2	March 2024	Remove 56815LVC & 59812LVC
Revision 1	January 2024	Testing to 300MP+ adhesives, 59812LVC & 56815LVC
Original release	May 2021	Testing and bulletin complete

3M™ Adhesive Transfer Tape 9472LE  
 3M™ Double Coated Tape 93015LE  
 3M™ Adhesive Transfer Tape 9775WL+  
 3M™ Double Coated Tape 9832+ / 9832HL+

3M™ Double Coated Tape 9832+/9832HL+  
 3M™ Adhesive Transfer Tape 6035PC+/6035PL+  
 3M™ Adhesive Transfer Tape 9627  
 3M™ Adhesive Transfer Tape 950/9472

Test	Test Condition / Environment	
180° Peel Adhesion 300mm / 12 inch per min	As Received 3.2.3.2	72 hours @ Room Temp
	Humidity 3.2.3.2.1	144 hours GMW14729 Option A: Water Fog
	Heat Age 3.2.3.2.2	24 hours @ 105°C / 221°F
	Environmental Cycle 3.2.3.2.3	GMW14124 Cycle M (2 cycles)
Shear Testing	Dynamic Lap Shear 3.2.4.1.1	2" per minute
	Static Shear : Dead Load 3.2.4.1.2	200g

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Note: Data reported in this technical bulletin, for all test methods, is the average of three replicates using one typical lot of adhesive.

## 9472LE

3.2.3.2 As received – 72 hour dwell @ Room Temp						
9472LE	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil	1510.56	138.08	Clean peel from PP	
	ABS	PET	1156.47	105.71	Clean peel from ABS	

3.2.3.2.1 Humidity – GMW14729 Option A: Water Fog 144 hours						
9472LE	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil	1416.91	129.52	Slight cohesive	
	ABS	PET	1177.44	107.63	Cohesive	

3.2.3.2.2 Heat Aging – 24 hours @ 105°C / 221°F						
9472LE	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil	31.51	2.88	Clean peel from PP	
	ABS	PET	260.81	23.84	Clean peel from ABS	

3.2.3.2.3 Environmental Cycle – GMW14124 Cycle M (2 cycles)						
9472LE	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil	906.12	82.83	Clean peel from PP	
	ABS	PET	1143.85	104.56	Cohesive	

3.2.4.1.1 Dynamic Shear – As Received				
9472LE	Substrate	Size		Requirement
	PP to PP	1" x 1"		340
	ABS to ABS			270

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3.2.4.1.1 Dynamic Shear – Cycle				
9472LE	Substrate	Size		Requirement 250 kPa
	PP to PP	1" x 1"		200
	ABS to ABS			290

3.2.4.1.2 Static Shear 200g				
9472LE	Substrate	Size		Requirement 24 hours
	PP	1" x 1"		Fail
	ABS			Fail

## 93015LE

3.2.3.2 As Received - 72 hour dwell @ Room Temp						
93015LE	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil PET	1101.62	100.70	2 bond	
	ABS		1119.13	102.30	2 bond	

3.2.3.2.1 Humidity – GMW14729 Option A: Water Fog 144 hours						
93015LE	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil PET	1060.30	96.92	2 bond	
	ABS		1155.23	105.60	Cohesive	

3.2.3.2.2 Heat Aging – 24 hours @ 105°C / 221°F						
93015LE	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil PET	56.01	5.12	Clean peel from PP	
	ABS		201.30	18.40	Clean peel from ABS	

3.2.3.2.3 Environmental - GMW14124 Cycle M (2 cycles)						
93015LE	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil PET	657.20	60.07	Clean peel from PP	
	ABS		994.85	90.94	Cohesive	

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3.2.4.1.1 Dynamic Shear – As Received				
93015LE	Substrate	Size	Requirement	
	PP to PP	1" x 1"	250kPa	
	ABS to ABS		540	590

3.2.4.1.1 Dynamic Shear – Cycle				
93015LE	Substrate	Size	Requirement	
	PP to PP	1" x 1"	250kPa	
	ABS to ABS		340	500

3.2.4.1.2 Static Shear – 200 grams				
93015LE	Substrate	Size	Requirement	
	PP	1" x 1"	24 hours	
	ABS		Fail	Pass

## 6035PC+/6035PL+

3.1.5.1 As received – 72 hour dwell @ Room Temp						
6035PC+/ 6035PL+	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil	327.32	29.92	Clean peel from PP	
	ABS	PET	770.50	70.43	Clean peel from ABS	

3.2.3.2.1 Humidity – GMW14729 Option A: Water Fog 144 hours						
6035PC+/ 6035PL+	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil	1280.74	117.07	Clean peel from PP	
	ABS	PET	1583.35	144.73	Cohesive	

3.2.3.2.2 Heat Aging – 24 hours @ 105°C / 221°F						
6035PC+/ 6035PL+	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil	708.47	64.76	Clean peel from PP	
	ABS	PET	641.74	58.66	Cohesive	

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3.2.3.2.3 Environmental - GMW14124 Cycle M (2 cycles)						
6035PC+/ 6035PL+	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil PET	691.63	63.22	Clean peel from PP	
	ABS		1550.85	141.76	Slight cohesive	

3.2.4.1.1 Dynamic Lap Shear – As Received				
6035PC+/ 6035PL+	Substrate	Size		Requirement 250kPa
	PP to PP	1" x 1"		531
	ABS to ABS			344

3.2.4.1.1 Dynamic Lap Shear – Cycle				
6035PC+/ 6035PL+	Substrate	Size		Requirement 250kPa
	PP to PP	1" x 1"		338
	ABS to ABS			400

3.2.4.1.2 Static Shear 200g				
6035PC+/ 6035PL+	Substrate	Size		Requirement 24 hours
	PP	1" x 1"		Fail
	ABS			Pass

## 9775WL+

3.2.3.2 As Received - 72 hour dwell @ Room Temp						
9775WL+	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil PET	688.42	62.93	Clean peel from PP	
	ABS		1013.15	92.61	Clean peel from ABS	

3.2.3.2.1 Humidity – GMW14729 Option A: Water Fog 144 hours						
9775WL+	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil PET	826.55	75.55	Clean peel from PP	
	ABS		1362.69	124.56	Clean peel from ABS	

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3.2.3.2.2 Heat Aging – 24 hours @ 105°C / 221°F						
9775WL+	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil	255.01	23.31	Clean peel from PP	
	ABS	PET	518.99	47.44	Slight cohesive	

3.2.3.2.3 Environmental - GMW14124 Cycle M (2 cycles)						
9775WL+	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m/ 47.93 oz/in or substrate failure
	PP	2 mil	630.91	57.67	Clean peel from PP	
	ABS	PET	1181.74	108.02	Clean peel from ABS	

3.2.4.1.1 Dynamic Shear – As Received				
9775WL+	Substrate	Size		Requirement 250kPa
	PP to PP	1" x 1"		252
	ABS to ABS			443

3.2.4.1.1 Dynamic Shear – Cycle				
9775WL+	Substrate	Size		Requirement 250kPa
	PP to PP	1" x 1"		340
	ABS to ABS			255

3.2.4.1.2 Static Shear 200g				
9775WL+	Substrate	Size	Observation	Requirement 24 hours
	PP	1" x 1"		Fail
	ABS			Pass

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9627

3.2.3.2 As Received - 72 hour dwell @ Room Temp						
9627	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil	1544.65	141.19	Slight cohesive	
	ABS	PET	1488.28	136.04	Clean peel from ABS	

3.2.3.2.1 Humidity – GMW14729 Option A: Water Fog 144 hours						
9627	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil	1465.38	133.95	Slight cohesive	
	ABS	PET	1187.94	108.59	Cohesive	

3.2.3.2.2 Heat Aging – 24 hours @ 105°C / 221°F						
9627	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil	77.02	7.04	Clean peel from PP	
	ABS	PET	136.53	12.48	Slight cohesive	

3.2.3.2.3 Environmental - GMW14124 Cycle M (2 cycles)						
9627	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil	1304.67	119.26	Cohesive	
	ABS	PET	1011.44	92.45	Cohesive	

3.2.4.1.1 Dynamic Shear – As Received				
9627	Substrate	Size		Requirement 250kPa
	PP to PP	1" x 1"		360
	ABS to ABS			250

3.2.4.1.1 Dynamic Shear – Cycle				
9627	Substrate	Size		Requirement 250kPa
	PP to PP	1" x 1"		360
	ABS to ABS			760

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3.2.4.1.2 Static Shear – 200 grams				
	Substrate	Size		Requirement
9627	PP	1" x 1"		24 hours
	ABS			Fail
				Pass

## 9832+/9832HL+

3.2.3.2 As Received - 72 hour dwell @ Room Temp						
	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
9832+ /9832HL+	PP	2 mil PET	621.06	56.77	Clean peel from PP	
	ABS		899.92	82.26	Clean peel from ABS	

3.2.3.2.1 Humidity – GMW14729 Option A: Water Fog 144 hours						
	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
9832+ /9832HL+	PP	2 mil PET	493.94	45.15	Clean peel from PP	
	ABS		872.90	79.79	Clean peel from ABS	

3.2.3.2.2 Heat Aging – 24 hours @ 105°C / 221°F						
	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
9832+ /9832HL+	PP	2 mil PET	25.38	2.32	Clean peel from PP	
	ABS		550.39	50.31	Slight cohesive	



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3.2.3.2.3 Environmental - GMW14124 Cycle M (2 cycles)						
9832+ / 9832HL+	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil PET	489.02	44.70	Clean peel from PP	
	ABS		910.64	83.24	Clean peel from ABS	

3.2.4.1.1 Dynamic Shear – As Received				
9832+ / 9832HL+	Substrate	Size		Requirement 250kPa
	PP to PP	1" x 1"		407
	ABS to ABS			425

3.2.4.1.1 Dynamic Shear – Cycle				
9832+ / 9832HL+	Substrate	Size		Requirement 250kPa
	PP to PP	1" x 1"		359
	ABS to ABS			425

3.2.4.1.2 Static Shear – 200 grams				
9832+ / 9832HL+	Substrate	Size		Requirement 24 hours
	PP	1" x 1"		Fail
	ABS			Pass

## 950 / 9472

3.2.3.2 As Received - 24 hour dwell @ Room Temp						
950 / 9472	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil PET	1435.44	131.21	Cohesive	
	ABS		1346.06	123.04	Cohesive	

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3.2.3.2.1 Humidity – GMW14729 Option A: Water Fog 144 hours						
950 / 9472	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil PET	1025.70	93.76	Cohesive	
	ABS		748.11	68.38	Cohesive	

3.1.5.1.2 Heat Aging – 24 hours @ 105°C / 221°F						
950 / 9472	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil PET	38.51	3.52	Clean peel from PP	
	ABS		406.09	37.12	Cohesive	

3.1.5.1.3 Environmental - GMW14124 Cycle M (2 cycles)						
950 / 9472	Substrate	Backing	AVG Peel N/m	AVG Peel oz/in	Observation	Requirement 525 N/m / 47.93 oz/in or substrate failure
	PP	2 mil PET	436.54	39.90	Clean peel from PP	
	ABS		1023.80	93.58	Cohesive	

3.2.4.1.1 Dynamic Shear – As Received				
950 / 9472	Substrate	Size		Requirement 250kPa
	PP to PP	1" x 1"		540
	ABS to ABS			460

3.2.4.1.1 Dynamic Shear – Cycle				
950 / 9472	Substrate	Size		Requirement 250kPa
	PP to PP	1" x 1"		210
	ABS to ABS			130

3.2.4.1.2 Static Shear – 200 grams				
950 / 9472	Substrate	Size		Requirement 24 hours
	PP	1" x 1"		Fail
	ABS			Pass

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