

FOAM BONDING GUIDE

March 2019





Mactac. Technology that sticks.



Mactac® is a leading manufacturer of pressure-sensitive adhesive products. Mactac manufacturing facilities serve markets in the US, Mexico and Canada. Mactac's products are used in a wide range of industries including printing, graphic design, packaging, digital imaging, photographic, assembly engineering, communications and medical device manufacturing.

Performance Adhesives Group



Medical Products Include:

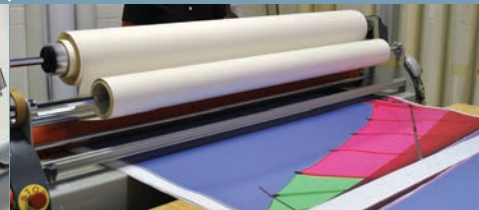
- Mactac Silk® Rubber Adhesives
- Acrysure® Solvent-free Acrylics
- Visoderm® Wound Care Films
- RESPONSE® Diagnostic



Roll Label Products Include:

- MACcopy®
- INDIE®
- Durable Films
- Mactac PUREtac™

Distributor Products Group



Graphic Products Include:

- IMAGin® Media
- PERMACOLOR® Overlaminates
- MACmark® Vinyl
- REBEL® Multi-print Media



Sheet Products Include:

- STARLINER® Labels
- METRO® Offset and Digital Sheets



Mactac. Technology that sticks.

Mactac® Industrial Tapes offer engineered pressure-sensitive solutions for bonding and mounting with the benefits of high-strength, immediate adhesion and superior aesthetics. Mactac is a member of the Pressure Sensitive Tape Council's Responsible Tape Manufacturing program and is ISO-9001: 2015 certified.

Mactac Industrial Tapes

- Double coated tapes
- Transfer adhesives
- Foam tapes
- GS Series - high strength transfer adhesive



Visit www.mactac.com/technical for performance guides and technical information.

Testing Methods

Mactac tape was applied to both the skin side and the cut side of the foam substrate using 50% Compression and a weighted 5# roller.

All tape was applied at room temperature, and peels were conducted manually at an approximate rate of 12"/minute

Peel testing was measured at intervals of 30 mins, 24 hours, 72 hours and 2 weeks at room temperature.

Accelerated aging - 1 week @ 140°F was performed to simulate long term performance for the PSA on a given foam substrate.

Adhesives

- XT-593** - High-tack, High-shear, Rubber Adhesive
- FBR899** - Rubber Foam Bonding Adhesive
- MP 410** - High-peel Acrylic Adhesive
- LV820** - Low VOC Acrylic Adhesive
- LSE427** - Low Surface Energy Acrylic

Mactac® Adhesion Testing on K-Flex Foam Grades

		AB-10		GV		41N		42N		HT		41E			
		Nitrile-PVC Blend		SBR-EVA Blend		NBR-PVC-CR Blend		NBR-PVC-CR Blend		EPDM		EPDM			
Formula	Dwell	Skin	Cut	Skin	Cut	Skin	Cut	Skin	Cut	Skin	Cut	Skin	Cut		
Rubber Adhesives	XT-593	30 min @ RT	++ (SL P)	+++	-	+++	+ (SL P)	+ (SL P)	++	+ (SL P)	++++	+ (SLP)	+++	+ (SLP)	
	XT-593	24 hour @ RT	+ (P)	+ (P)	++++	+++	+++	+ (SL P)	++	+ (SLP)	++++	+ (P)	++++	+ (P)	
	XT-593	72 hours @ RT	++++	+++	++++	+++	++++	+ (SL P)	+++	+ (SLP)	++++	+ (P)	++++	+ (P)	
	XT-593	2 Weeks @ RT	++++	++ (P)	++++	+++	++++	+ (SL P)	+++	+ (SLP)	++++	+ (P)	++++	+ (P)	
	XT-593	1 week @ 140°F	+++ (CF)	+ (CF)	++++	+++	+ (CF&P)	+ (CF)	++ (CF)	+ (SLP)	++++	+ (P)	+++ (CF)	- (P)	
	FBR899	30 min @ RT	++++	+ (SL P)	++++	+++	++++	+ (SL P)	++	++	++++	+ (SL P)	+++	+ (SL P)	
	FBR899	24 hour @ RT	++++	+ (P)	++++	+++	+++	+ (SL P)	+++ (CF)	+ (SL P)	++++	+ (SL P)	++++	+ (SL P)	
	FBR899	72 hours @ RT	++++	+ (P)	++++	+++	+++ (CF)	+ (SL P)	+++ (CF)	+ (SL P)	++++	+ (P)	++++	+ (P)	
	FBR899	2 Weeks @ RT	++++	+++	++++	+++	+++ (CF)	+ (SL P)	+++ (CF)	+ (SL P)	++++	+++	++++	+++	
	FBR899	1 week @ 140°F	+++ (CF)	+ (CF)	++ (CF/P)	+ (CF/P)	++ (CF)	++ (CF)	++ (CF)	++ (CF)	++++	+ (P)	++ (CF)	++ (CF)	
Acrylic Adhesives	MP410 LCW	30 min @ RT	+ (SL P)	+++	+++	+++	+ (SL P)	+ (SL P)	++	+++	+	+ (SL P)	+	+ (SL P)	
	MP410 LCW	24 hour @ RT	+++	+++	+++	++++	+ (SL P)	+ (SL P)	+++	+++ (CF)	+++	+ (SL P)	+	+ (SL P)	
	MP410 LCW	72 hours @ RT	++++	+++	++++	+++	+ (P)	+ (P)	+++	+++ (CF)	+++	+ (P)	+	+ (SL P)	
	MP410 LCW	2 Weeks @ RT	++++	+++	++++	+++	+++	+ (CF&P)	++	+ (CF&P)	++++	+ (P)	++	+ (SL P)	
	MP410 LCW	1 week @ 140°F	++++	+ (SL P)	++++	+++	+ (CF)	- (CF)	- (CF)	- (CF)	++++	+ (P)	++ (CF)	+ (SL P)	
	MP410 HCW	30 min @ RT	++++	+++	++++	+++	+++	+++	++	+++	+ (SL P)	+ (SL P)	+	+ (SL P)	
	MP410 HCW	24 hour @ RT	++++	+++	++++	+++	++++	+++	++	+++	++++	+ (P)	++ (CF)	+ (SL P)	
	MP410 HCW	72 hours @ RT	++++	+++	++++	+++	++++	+++	+++	+++	++++	+++	++ (CF)	+ (SL P)	
	MP410 HCW	2 Weeks @ RT	++++	+++	++++	+++	++++	+++	+++	+++	++++	+++	++ (CF)	+ (P)	
	MP410 HCW	1 week @ 140°F	+++ (CF)	+++ (CF)	++++	+++	+ (CF)	+ (CF)	- (CF)	- (CF)	++++	+++	+ (CF)	+ (SL P)	
LV820	30 min @ RT	++++	+++	++++	+++	+++	+++	+++	+++	+++	+++	+ (SL P)	+ (SL P)	+	+ (SL P)
	24 hour @ RT	++++	+++	++++	+++	++++	+++	+++	++	+++	++++	+ (P)	++ (CF)	+ (SL P)	
	72 hours @ RT	++++	+++	++++	+++	++++	+++	+++	+++	+++	++++	+++	++ (CF)	+ (SL P)	
	2 Weeks @ RT	++++	+++	++++	+++	++++	+++	+++	+++	+++	++++	+++	++ (CF)	+ (P)	
	1 week @ 140°F	+++ (CF)	+++ (CF)	++++	+++	+ (CF)	+ (CF)	- (CF)	- (CF)	++++	+++	+++	+ (CF)	+ (SL P)	
		Migration @140°F				Migration @140°F				Migration @140°F					

Key

++++	Foam Destruction	SL P	Slight Picking 20%
+++	Very Aggressive	P	Picking 20-50%
++	Aggressive	CF	Cohesive Failure
+	Mild	CF & P	Cohesive Failure & Picking
-	Poor		

Mactac® Adhesion Testing on K-Flex Foam Grades Continued

		40P		K43N		40E		G		41P		41PA			
		Nitrile-PVC Blend		NBR-PVC-CR Blend		EPDM		Nitrile-PVC Blend		Nitrile-PVC Blend		Nitrile-PVC Blend			
Formula	Dwell	Skin	Cut	Skin	Cut	Skin	Cut	Skin	Cut	Skin	Cut	Skin	Cut		
Rubber Adhesives	XT-593	30 min @ RT	++ (SL P)	+++	-	+++	+ (SL P)	+ (SL P)	++	+ (SL P)	++++	+ (SLP)	+++	+ (SLP)	
	XT-593	24 hour @ RT	+ (P)	+ (P)	++++	+++	+++	+ (SL P)	++	+ (SLP)	++++	+ (P)	++++	+ (P)	
	XT-593	72 hours @ RT	++++	+++	++++	+++	++++	+ (SL P)	+++	+ (SLP)	++++	+ (P)	++++	+ (P)	
	XT-593	2 Weeks @ RT	++++	++ (P)	++++	+++	++++	+ (SL P)	+++	+ (SLP)	++++	+ (P)	++++	+ (P)	
	XT-593	1 week @ 140°F	+++ (CF)	+ (CF)	++++	+++	+ (CF&P)	+ (CF)	++ (CF)	+ (SLP)	++++	+ (P)	+++ (CF)	- (P)	
	FBR899	30 min @ RT	++++	+ (SL P)	++++	+++	++++	+ (SL P)	++	++	++++	+ (SL P)	+++	+ (SL P)	
	FBR899	24 hour @ RT	++++	+ (P)	++++	+++	+++	+ (SL P)	+++ (CF)	+ (SL P)	++++	+ (SL P)	++++	+ (SL P)	
	FBR899	72 hours @ RT	++++	+ (P)	++++	+++	+++ (CF)	+ (SL P)	+++ (CF)	+ (SL P)	++++	+ (P)	++++	+ (P)	
	FBR899	2 Weeks @ RT	++++	+++	++++	+++	+++ (CF)	+ (SL P)	+++ (CF)	+ (SL P)	++++	+++	++++	+++	
	FBR899	1 week @ 140°F	+++ (CF)	+ (CF)	++ (CF/P)	+ (CF/P)	++ (CF)	++ (CF)	++ (CF)	++ (CF)	++++	+ (P)	++ (CF)	++ (CF)	
Acrylic Adhesives	MP410 LCW	30 min @ RT	+ (SL P)	+++	+++	+++	+ (SL P)	+ (SL P)	++	+++	+	+ (SL P)	+	+ (SL P)	
	MP410 LCW	24 hour @ RT	+++	+++	+++	++++	+ (SL P)	+ (SL P)	+++	+++ (CF)	+++	+ (SL P)	+	+ (SL P)	
	MP410 LCW	72 hours @ RT	++++	+++	++++	+++	+ (P)	+ (P)	+++	+++ (CF)	+++	+ (P)	+	+ (SL P)	
	MP410 LCW	2 Weeks @ RT	++++	+++	++++	+++	+++	+ (CF&P)	++	+ (CF&P)	++++	+ (P)	++	+ (SL P)	
	MP410 LCW	1 week @ 140°F	++++	+ (SL P)	++++	+++	+ (CF)	- (CF)	- (CF)	- (CF)	++++	+ (P)	++ (CF)	+ (SL P)	
	MP410 HCW	30 min @ RT	++++	+++	++++	+++	+++	+++	++	+++	+ (SL P)	+ (SL P)	+	+ (SL P)	
	MP410 HCW	24 hour @ RT	++++	+++	++++	+++	++++	+++	++	+++	++++	+ (P)	++ (CF)	+ (SL P)	
	MP410 HCW	72 hours @ RT	++++	+++	++++	+++	++++	+++	+++	+++	++++	+++	++ (CF)	+ (SL P)	
	MP410 HCW	2 Weeks @ RT	++++	+++	++++	+++	++++	+++	+++	+++	++++	+++	++ (CF)	+ (P)	
	MP410 HCW	1 week @ 140°F	+++ (CF)	+++ (CF)	++++	+++	+ (CF)	+ (CF)	- (CF)	- (CF)	++++	+++	+ (CF)	+ (SL P)	
LV820	30 min @ RT	++++	+ (SL P)	++	+	+ (SL P)	+ (SL P)	++++	+ (SL P)	+ (SL P)	+ (SL P)	+	+++		
	24 hour @ RT	++++	+ (P)	++	+ (CF)	+++	+ (SL P)	++++	+ (SL P)	+++	+ (P)	+++	+++		
	72 hours @ RT	++++	+++	++ (CF)	+ (CF)	+++	+ (P)	++++	+ (P)	++++	+++	++++	+++		
	2 Weeks @ RT	++++	+++	++ (CF)	+ (CF)	+++	+ (P)	++++	+++	++++	+++	++++	+++		
	1 week @ 140°F	++++	++++	- (CF)	- (CF)	++++	+ (P)	+ (CF&P)	- (CF)	++++	+ (CF)	+++ (CF)	+ (CF)		
				Migration @140°F				Migration @140°F				Migration @140°F			

Key

++++	Foam Destruction	SL P	Slight Picking 20%
+++	Very Aggressive	P	Picking 20-50%
++	Aggressive	CF	Cohesive Failure
+	Mild	CF & P	Cohesive Failure & Picking
-	Poor		

Mactac® Adhesion Testing on Armacell Foam Grades

		GIC	AFM Med.	ICF400	.5 ECF400	1.25 ECF400	1400	MLC2TAN	MLC2BLK	
		Nitrile-PVC Blend	Nitrile-PVC Blend	Nitrile-PVC Blend	EPDM	EPDM	Neoprene	Nitrile-PVC Blend	Nitrile-PVC Blend	
Formula	Dwell	Skin	Embossed	Skin	Skin	Skin	Skin	Skin	Skin	
Rubber Adhesives	XT-593	30 min @ RT	-	+ (P)	+ (P)	+ (P)	+ (P)	++	+	+
	XT-593	24 hour @ RT	+ (P)	+ (P)	+ (P)	++++	++++	+++	+	+
	XT-593	72 hours @ RT	+ (P)	+ (P)	+ (P)	++++	++++	+++	+	+
	XT-593	2 Weeks @ RT	+ (P)	+ (P)	+++	++++	++++	+++	+	+
	XT-593	1 week @ 140°F	+++	+ (CF)	++++	++++	++++	++ (CF)	+++	++++
	FBR899	30 min @ RT	+++	+ (P)	++++	++++	++++	+++	++	+++
	FBR899	24 hour @ RT	+++	-	++++	++++	++++	+++	++	+++
	FBR899	72 hours @ RT	+++	-	++++	++++	++++	+++	++	+++
	FBR899	2 Weeks @ RT	+++	-	++++	++++	++++	+++	++	+++
	FBR899	1 week @ 140°F	+++ (CF)	- (CF)	- (CF)	++++	++ (CF)	- (CF)	- (CF)	++++
Acrylic Adhesives	MP410 LCW	30 min @ RT	+	-	+ (P)	+	+	+	+	+
	MP410 LCW	24 hour @ RT	+ (P)	+ (P)	++++	+	+	+ (P)	++	+++
	MP410 LCW	72 hours @ RT	+++	+ (P)	++++	+	+	+ (P)	++++	++++
	MP410 LCW	2 Weeks @ RT	+++	+ (P)	++++	+	+	+ (P)	++++	++++
	MP410 LCW	1 week @ 140°F	++++	+ (CF)	++++	+	+ (SL P)	+ (CF)	++++	++++
	MP410 HCW	30 min @ RT	+	+++	+ (P)	+	+	+ (P)	+	+++
	MP410 HCW	24 hour @ RT	+++	+++	++++	+	+	+ (P)	++++	++++
	MP410 HCW	72 hours @ RT	+++	++ (P)	++++	+	+	+++	++++	++++
	MP410 HCW	2 Weeks @ RT	+++	++ (P)	++++	+	+	+++ (AT)	++++	++++
	MP410 HCW	1 week @ 140°F	++++	++ (CF)	++++	+	+ (P)	+ (CF)	++++	++++
	LV820	30 min @ RT	+	+++	+ (P)	+	+	+ (P)	+	+++
	LV820	24 hour @ RT	+++	+++	++++	+	+	+ (P)	++++	++++
	LV820	72 hours @ RT	+++	++ (P)	++++	+	+	+++	++++	++++
	LV820	2 Weeks @ RT	+++	++ (P)	++++	+	+	+++ (AT)	++++	++++
	LV820	1 week @ 140°F	++++	++ (CF)	++++	+	+ (P)	+ (C)	++++	++++
	LSE427	30 min @ RT	+	++	++++	+++	+++	++++	+++	+++
	LSE427	24 hour @ RT	+++	++	++++	++++	++++	++++	++++	+++
	LSE427	72 hours @ RT	+++	++	++++	++++	++++	++++	++++	+++
LSE427	2 Weeks @ RT	++++	++	++++	++++	++++	++++	++++	+++	
LSE427	1 week @ 140°F	+++	+	++++	++++	++++	+	++++	++++	

Migration @140°F

Migration @140°F

Key

++++ Foam Destruction
 +++ Very Aggressive
 ++ Aggressive
 + Mild
 - Poor

SL P Slight Picking 20%
 P Picking 20-50%
 CF Cohesive Failure
 CF & P Cohesive Failure & Picking

Mactac® Adhesion Testing on Armacell Foam Grades Continued

		TAN LCS	IV1	IR41	IV3	OER	EG1	FCO	SFO	
		Nitrile-PVC Blend	NBR-PVC-CR Blend	NBR-PVC-CR Blend	NBR-PVC-CR Blend	Nitrile-PVC Blend	EPDM	Nitrile-PVC Blend	Nitrile-PVC Blend	
Formula	Dwell	Skin	Skin	Skin	Skin	Skin	Skin	Skin	Skin	
Rubber Adhesives	XT-593	30 min @ RT	-	-	++++	-	++++	++++	++++	++++
	XT-593	24 hour @ RT	-	-	++++	-	++++	++++	++++	++++
	XT-593	72 hours @ RT	-	-	++++	-	++++	++++	++++	++++
	XT-593	2 Weeks @ RT	-	-	++++	-	++++	++++	++++	++++
	XT-593	1 week @ 140°F	++ (CF)	++++	++++	+ (CF)	++++	++++	++++	++++
	FBR899	30 min @ RT	+	+ (P)	++++	+	++++	++++	++++	++++
	FBR899	24 hour @ RT	+	+ (P)	++++	+	++++	++++	++++	++++
	FBR899	72 hours @ RT	+	+ (P)	++++	+	++++	++++	++++	++++
	FBR899	2 Weeks @ RT	+	+ (P)	++++	+	++++	++++	++++	++++
	FBR899	1 week @ 140°F	++ (CF)	+ (CF)	++++	- (CF)	++++	++++	++++	++++
Acrylic Adhesives	MP410 LCW	30 min @ RT	+	+ (P)	+ (P)	+	++++	++++	++++	++++
	MP410 LCW	24 hour @ RT	+	+++	++++	++	++++	++++	++++	++++
	MP410 LCW	72 hours @ RT	+	++++	++++	++ (AT)	++++	++++	++++	++++
	MP410 LCW	2 Weeks @ RT	+ (CF)	++++	++++	++ (AT)	++++	++++	++++	++++
	MP410 LCW	1 week @ 140°F	+ (CF)	++++	++++	++ (CF/AT)	++++	++++	++++	++++
	MP410 HCW	30 min @ RT	++	+ (P)	+++	++	++++	++++	++++	++++
	MP410 HCW	24 hour @ RT	++	++++	++++	++	++++	++++	++++	++++
	MP410 HCW	72 hours @ RT	++	++++	++++	++ (CF)	++++	++++	++++	++++
	MP410 HCW	2 Weeks @ RT	++ (CF/AT)	++++	++++	++ (CF)	++++	++++	++++	++++
	MP410 HCW	1 week @ 140°F	+ (CF)	++++	++++	++ (CF)	++++	++++	++++	++++
	LV820	30 min	++	+ (P)	+++	++	++++	++++	++++	++++
	LV820	24 hour	++	++++	++++	++	++++	++++	++++	++++
	LV820	72 hours	++	++++	++++	++ (CF)	++++	++++	++++	++++
	LV820	2 Weeks	++ (CF/AT)	++++	++++	++ (CF)	++++	++++	++++	++++
	LV820	1 week @ 140°F	+ (CF)	++++	++++	++ (CF)	++++	++++	++++	++++
	LSE427	30 min	++	+++	+++	++	++++			
	LSE427	24 hour	++	+++	++++	+++	++++			
LSE427	72 hours	+++	+++	++++	+++	++++				
LSE427	2 Weeks	+++	+++	++++	+++	++++				
LSE427	1 week @ 140°F	++	+++	++++	+	++++				

Migration @140°F

Migration @140°F

Key

++++ Foam Destruction
 +++ Very Aggressive
 ++ Aggressive
 + Mild
 - Poor

SL P Slight Picking 20%
 P Picking 20-50%
 CF Cohesive Failure
 CF & P Cohesive Failure & Picking

Mactac® Adhesion Testing on Monarch Foam Grades

		3092	3944	2003	3043	4051	6231	
		EPDM	EPDM	Neoprene	EPDM	ECH	Nitrile-PVC Blend	
Formula	Dwell	Skin	Skin	Skin	Skin	Skin	Skin	
Rubber Adhesives	XT-593	30 min @ RT	+	+	+	+++	+	
	XT-593	24 hour @ RT	+ (SL P)	++	-	+ (SL P)	+++	++
	XT-593	72 hours @ RT	+++	++	-	+	+++	++
	XT-593	2 Weeks @ RT	+++	+++	-	+	+++	+++
	XT-593	1 week @ 140°F	+ (SL P)	+++	++	+++ (CF)	+++	++
	FBR899	30 min @ RT	+ (SL P)	+++	+	+++	++++	-
	FBR899	24 hour @ RT	+ (P)	++++	+	+++	++++	+
	FBR899	72 hours @ RT	+ (P)	++++	+	++++	++++	+
	FBR899	2 Weeks @ RT	+++	++++	+	++++	+++	+
	FBR899	1 week @ 140°F	+++	++ (CF)	++ (CF)	+ (CF)	++ (CF)	+++ (CF)
Acrylic Adhesives	MP410 LCW	30 min @ RT	+ (SL P)	+	-	+ (SL P)	+++	-
	MP410 LCW	24 hour @ RT	+ (SL P)	+ (SL P)	+	+ (SL P)	++++	+
	MP410 LCW	72 hours @ RT	+ (P)	+ (SL P)	+	+ (SL P)	+++	+
	MP410 LCW	2 Weeks @ RT	+ (P)	++	++	+++	+++	++
	MP410 LCW	1 week @ 140°F	+ (SL P)	+++	- (CF)	+ (CF&P)	+ (CF)	- (CF)
	MP410 HCW	30 min @ RT	+ (SL P)	+	+	+ (SL P)	++++	-
	MP410 HCW	24 hour @ RT	+ (P)	+++	+	+++	++++	-
	MP410 HCW	72 hours @ RT	+ (P)	+++	+++	+++	++++	-
	MP410 HCW	2 Weeks @ RT	+ (P)	++	++	+ (AT)	++++	+
	MP410 HCW	1 week @ 140°F	+ (SL P)	++ (CF)	++ (CF)	+ (CF)	++ (CF)	+ (CF)
	LV820	30 min @ RT	+ (SL P)	+	+	+ (SL P)	++++	-
	LV820	24 hour @ RT	+ (P)	+++	+	+++	++++	-
	LV820	72 hours @ RT	+ (P)	+++	+++	+++	++++	-
	LV820	2 Weeks @ RT	+ (P)	++	++	+ (AT)	++++	+
	LV820	1 week @ 140°F	+ (SL P)	++ (CF)	++ (CF)	+ (CF)	++ (CF)	+ (CF)
		Migration @140°F		Migration @140°F	Migration @140°F	Migration @140°F	Migration @140°F	

Key

++++ Foam Destruction
 +++ Very Aggressive
 ++ Aggressive
 + Mild
 - Poor

SL P Slight Picking 20%
 P Picking 20-50%
 CF Cohesive Failure
 CF & P Cohesive Failure & Picking

Mactac® Adhesion Testing on Monarch Foam Grades Continued

		2055	5031	6032	5013	8082	8001	
		Neoprene	EPDM-CR-SBR Blend	Nitrile-PVC Blend	EPDM-CR-SBR Blend	EPDM	EPDM	
Formula	Dwell	Skin	Skin	Skin	Skin	Skin	Skin	
Rubber Adhesives	XT-593	30 min @ RT	+	+	+	+	+ (SL P)	+ (SL P)
	XT-593	24 hour @ RT	+	-	+ (SL P)	+	+ (P)	+ (SL P)
	XT-593	72 hours @ RT	++	+ (SL P)	+ (SL P)	+	+ (P)	+ (SL P)
	XT-593	2 Weeks @ RT	++	+ (P)	+	+	+++	+++
	XT-593	1 week @ 140°F	+++	+ (P)	+ (SL P)	+++	+++	+ (CF&P)
	FBR899	30 min @ RT	+ (SL P)	+ (SL P)	+ (SL P)	+ (SL P)	+++	+++
	FBR899	24 hour @ RT	+++	+ (P)	+ (SL P)	+ (P)	+++	+++
	FBR899	72 hours @ RT	+++	+ (P)	+ (SL P)	+++	++++	+++
	FBR899	2 Weeks @ RT	+++	+++	+ (P)	+++	++++	+++
	FBR899	1 week @ 140°F	+ (CF)	+ (CF)	+ (CF)	+++ (CF)	++++	+++
Acrylic Adhesives	MP410 LCW	30 min @ RT	+ (SL P)	+ (SL P)	+ (SL P)	+	+ (SL P)	+ (SL P)
	MP410 LCW	24 hour @ RT	+++	+ (SL P)	+ (SL P)	+ (SL P)	+ (P)	+ (SL P)
	MP410 LCW	72 hours @ RT	+++	+	+ (SL P)	+ (P)	+ (P)	+ (P)
	MP410 LCW	2 Weeks @ RT	+++	+ (P)	+ (P)	+++	+++	+++
	MP410 LCW	1 week @ 140°F	+ (CF&AT)	+ (SL P)	+ (CF)	- (CF)	+ (P)	+++
	MP410 HCW	30 min @ RT	++	+ (SL P)	++	++	++	++
	MP410 HCW	24 hour @ RT	+++	+++	+++	+++	+++	++ (SL P)
	MP410 HCW	72 hours @ RT	+++	+++	+++	+++	+++	++++
	MP410 HCW	2 Weeks @ RT	+++	+++	+++	+++	++++	++++
	MP410 HCW	1 week @ 140°F	+ (CF)	+ (CF)	+ (CF)	+ (CF)	+ (P)	++++
	LV820	30 min @ RT	++	+ (SL P)	++	++	++	++
	LV820	24 hour @ RT	+++	+++	+++	+++	+++	++ (SL P)
	LV820	72 hours @ RT	+++	+++	+++	+++	+++	++++
	LV820	2 Weeks @ RT	+++	+++	+++	+++	++++	++++
LV820	1 week @ 140°F	+ (CF)	+ (CF)	+ (CF)	+ (CF)	+ (P)	++++	
		Migration @140°F	Migration @140°F	Migration @140°F	Migration @140°F			

Key

++++ Foam Destruction
 +++ Very Aggressive
 ++ Aggressive
 + Mild
 - Poor

SL P Slight Picking 20%
 P Picking 20-50%
 CF Cohesive Failure
 CF & P Cohesive Failure & Picking

Mactac® Adhesion Testing Off of Rogers Foam Grades

		Poron 4701-30	Poron 4701-40	Poron 4701-50	Poron 4701-60	Poron 4790-79	Poron 4790-92	
Formula	Dwell	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	
Rubber Adhesives	XT-593	30 min @ RT	-	-	+	-	+	+
	XT-593	24 hour @ RT	+	+	+	+	+	+++
	XT-593	72 hours @ RT	+	+	+	+	+	+++
	XT-593	2 Weeks @ RT	+	+	+	+	+	++++
	XT-593	1 week @ 140°F	++++	++++	++++	++	++++	++++
	FBR899	30 min @ RT	+	+	+	+	+	++
	FBR899	24 hour @ RT	+++	++	+	+	+	++++
	FBR899	72 hours @ RT	++++	++++	++	+	+	++++
	FBR899	2 Weeks @ RT	++++	++++	++	+	+	++++
	FBR899	1 week @ 140°F	++++	++++	+++	++	++++	++++
Acrylic Adhesives	MP410 LCW	30 min @ RT	++++	+	++	+	+	++
	MP410 LCW	24 hour @ RT	++++	++	++	++	++	+++
	MP410 LCW	72 hours @ RT	++++	+++	++	++	+++	++++
	MP410 LCW	2 Weeks @ RT	++++	++++	++	+++	+++	++++
	MP410 LCW	1 week @ 140°F	++++	++++	++++	+++	++++	++++
	MP410 HCW	30 min @ RT	++++	++	++	++	+	++++
	MP410 HCW	24 hour @ RT	++++	+++	++	++	+	++++
	MP410 HCW	72 hours @ RT	++++	+++	++	+++	+	++++
	MP410 HCW	2 Weeks @ RT	++++	++++	++	+++	+++	++++
	MP410 HCW	1 week @ 140°F	++++	++++	++++	+++	++++	++++
	LV820	30 min @ RT	++++	++	++	++	+	++++
	LV820	24 hour @ RT	++++	+++	+++	++	+	++++
	LV820	72 hours @ RT	++++	+++	+++	+++	+	++++
	LV820	2 Weeks @ RT	++++	++++	++++	+++	+++	++++
	LV820	1 week @ 140°F	++++	++++	++++	+++	++++	++++
	LSE427	30 min @ RT	++++	+++	+	+	+	++++
	LSE427	24 hour @ RT	++++	+++	+	++	+	++++
	LSE427	72 hours @ RT	++++	++++	++	++	++	++++
LSE427	2 Weeks @ RT	++++	++++	++	++	++	++++	
LSE427	1 week @ 140°F	++++	++++	++++	++	+++	++++	

Key

++++ Foam Destruction

+++ Very Aggressive

++ Aggressive

+ Mild

- Poor

Mactac® Adhesion Testing Off of Zotefoam Grades

		EV50	HD30	LD24	LD45	VA35	
		EVA	HDPE	LDPE	LDPE	EVA	
Formula	Dwell	Skin	Skin	Skin	Skin	Skin	
Rubber Adhesives	XT-593	30 min @ RT	-	+	+	+++	
	XT-593	24 hour @ RT	+	+	-	+++	
	XT-593	72 hours @ RT	+	+	-	+++	
	XT-593	2 Weeks @ RT	+	+	-	+++	
	XT-593	1 week @ 140°F	+++	+(CF)	++	+++	
	FBR899	30 min @ RT	+(SL P)	+	+	++++	
	FBR899	24 hour @ RT	+(P)	+	+(SL P)	++++	
	FBR899	72 hours @ RT	++	+	++++	++++	
	FBR899	2 Weeks @ RT	++	+	++++	++++	
	FBR899	1 week @ 140°F	++++	+(CF)	++++	+(CF)++++	
Acrylic Adhesives	MP410 LCW	30 min @ RT	+(SL P)	+	-	+++	
	MP410 LCW	24 hour @ RT	+(SL P)	+	+	+++	
	MP410 LCW	72 hours @ RT	+(SLP)	+	+	+++	
	MP410 LCW	2 Weeks @ RT	+(SL P)	+	++	+++	
	MP410 LCW	1 week @ 140°F	+++	+	-(CF)	+++	
	MP410 HCW	30 min @ RT	+(SL P)	+	+	++++	
	MP410 HCW	24 hour @ RT	+(SL P)	+	+	++++	
	MP410 HCW	72 hours @ RT	++	+	+++	+(SL P)++++	
	MP410 HCW	2 Weeks @ RT	++	+	++	+(SL P)+++	
	MP410 HCW	1 week @ 140°F	++++	+	++(CF)	+++	
	LV820	30 min @ RT	+(SL P)	+	+	+	++++
	LV820	24 hour @ RT	+(SL P)	+	+	+	++++
	LV820	72 hours @ RT	++	+	+++	+(SL P)	++++
	LV820	2 Weeks @ RT	++	+	++	+(SL P)	+++
	LV820	1 week @ 140°F	++++	+	++(CF)	+	+++
	MP463	30 min @ RT	+	+	+	+	++++
	MP463	24 hour @ RT	+	+	+	+	++++
	MP463	72 hours @ RT	++	+	+++	+	++++
	MP463	2 Weeks @ RT	++	+	++	+	+++
	MP463	1 week @ 140°F	++++	-	++(CF)	+	+++
LSE427	30 min @ RT	++	+	++	++	++	
LSE427	24 hour @ RT	+++	++	++	++	++	
LSE427	72 hours @ RT	++++	++	+++	+++	+++	
LSE427	2 Weeks @ RT	++++	++	+++	+++	+++	
LSE427	1 week @ 140°F	++++	++	+++	+++	+++	
				Migration @140°F	Migration @140°F		

Key

- ++++ Foam Destruction
- +++ Very Aggressive
- ++ Aggressive
- + Mild
- Poor

- SL P Slight Picking 20%
- P Picking 20-50%
- CF Cohesive Failure
- CF & P Cohesive Failure & Picking

