



## Foam Bonding Study: Armacell Ensolite® Elastomeric Component Foam - Gasket and Seals

### Test Method:

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"/sec.

**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.

**Armacell is a manufacturer of high-performance, elastomeric closed-cell foam.**



General Gasketing



Automotive  
General Sealing, HVAC,  
NVH Applications,  
Door Panel Assemblies



Mass Transit



Heavy  
Machinery



Sports Equipment  
& Padding

### Adhesives

- |                  |   |
|------------------|---|
| <b>MP 593XT</b>  | - High-tack, High-shear,<br>Rubber Adhesive |
| <b>MP 899FBT</b> | - Rubber Foam Bonding<br>Adhesive           |
| <b>MP 410</b>    | - NEW! High-peel<br>Acrylic Adhesive        |



		"++++" = Foam Destruction		"+++" = Very Aggressive		"++" = Aggressive		"+" = Mild		"- " = Poor	
		"SL P" = Slight Picking <20%		"P" = Picking (25-50%)		"CF" = Cohesive Failure		"AT" = Adhesive Transfer		"CF&P" = Cohesive Failure & Picking	
		GIC	AFM Med.	ICF400	.5 ECF400	1.25 ECF400	1400	MLC2TAN	MLC2BLK	Nitrile-PVC Blend	Nitrile-PVC Blend
Rubber Adhesives	Formula	Dwell	Skin	Embossed	Skin	Skin	Skin	Skin	Skin	Skin	Skin
	MP-593XT	30 min @ RT	-	+(P)	+(P)	+(P)	++	+	+	+	+
	MP-593XT	24 hour @ RT	+(P)	+(P)	+(P)	+++	+++	+++	+	+	+
	MP-593XT	72 hours @ RT	+(P)	+(P)	+(P)	+++	+++	+++	+	+	+
	MP-593XT	2 Weeks @ RT	+(P)	+(P)	+++	+++	+++	+++	+	+	+
	MP-593XT	1 week @ 140°F	+++	+ (CF)	++++	++++	++++	++ (CF)	+++	++++	++++
	MP-899	30 min @ RT	+++	+ (P)	++++	++++	+++	++	++	+++	+++
	MP-899	24 hour @ RT	+++	-	++++	++++	+++	++	++	+++	+++
	MP-899	72 hours @ RT	+++	-	++++	++++	+++	++	++	+++	+++
	MP-899	2 Weeks @ RT	+++	-	++++	++++	+++	++	++	+++	+++
	MP-899	1 week @ 140°F	+++ (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)	++++	+	+ (SLP)	+ (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)	+++	+++	+++

Migration @140°F

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		"SL P" = Slight Picking <20%		"P" = Picking (25-50%)		"CF" = Cohesive Failure		"AT" = Adhesive Transfer		"CF&P" = Cohesive Failure & Picking	
		TAN LCS	IV1	IR41	IV3	OER	EG1	FCO	SFO	Nitrile-PVC Blend	Nitrile-PVC Blend
Rubber Adhesives	Formula	Dwell	Skin	Skin	Skin	Skin	Skin	Skin	Skin	Skin	Skin
	MP-593XT	30 min @ RT	-	-	++++	-	++++	+++	+++	+++	+++
	MP-593XT	24 hour @ RT	-	-	++++	-	++++	+++	+++	+++	+++
	MP-593XT	72 hours @ RT	-	-	++++	-	++++	+++	+++	+++	+++
	MP-593XT	2 Weeks @ RT	-	-	++++	-	++++	+++	+++	+++	+++
	MP-593XT	1 week @ 140°F	++ (CF)	+++	++++	+ (CF)	++++	+++	+++	+++	+++
	MP-899	30 min @ RT	+	+ (P)	+++	+	+++	+++	+++	+++	+++
	MP-899	24 hour @ RT	+	+ (P)	+++	+	+++	+++	+++	+++	+++
	MP-899	72 hours @ RT	+	+ (P)	+++	+	+++	+++	+++	+++	+++
	MP-899	2 Weeks @ RT	+	+ (P)	+++	+	+++	+++	+++	+++	+++
	MP-899	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	++	+ (P)	+++	++	+++	+++	+++	+++	+++
	MP410 HCW	24 hour	++	+++	+++	++	+++	+++	+++	+++	+++
	MP410 HCW	72 hours	++	+++	+++	++ (CF)	+++	+++	+++	+++	+++
	MP410 HCW	2 Weeks	++ (CF/AT)	+++	+++	++ (CF)	+++	+++	+++	+++	+++
	MP410 HCW	1 week @ 140°F	+	(CF)	+++	++ (CF)	+++	+++	+++	+++	+++

Migration @140°F

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Mactac is ISO9000-2000 certified.

Mactac is a member of the following organizations:

Gasket Fabricators Association

National Association of Graphic and Product Identification Manufacturers, Inc. (GPI)

Pressure Sensitive Tape Council (PSTC)

