FLEXcon® FLEXmount® L-344/V-344 Series Adhesive

Product Description

FLEXcon's general purpose adhesive. This permanent acrylic adhesive offers high shear and excellent adhesion to metals, and high-surface energy plastics.

Product	Adhesive Thickness	Adhesive Color
FLEXmount® TT 200 L-344/V-344	2.0	Clear
FLEXmount® TT 400 L-344/V-344	4.0	Clear

Performance Benefits

- L/V-344 adheres to metal and high-energy surfaces.
- The adhesive performs within a wide service temperature range of -40°F to 302°F (-40°C to 150°C).
- Available on transfer tapes, double-coated products and decal stock.
- Adhesive thickness, liners, films and topcoats can be customized to comply with different converting, assembly and end-use requirements.

Certification Recognition

- ISO 9001:2008 Certified Manufacturer
- UL Recognized

Finishing Options

Master Log rolls can be cut to meet the needs of your manufacturing process or end use requirements. Roll sizes start at 1". For custom finishing, standard charges apply.

Product Technical Data

Expected Exterior Life	Dependant on life of substrate; adhesive is suitable for outdoor applications
Service Temperature Range	-40°F to 302°F (-40°C to 150°C)
Minimum Application Temperature	50°F (10°C)
Storage Stability	Two years stored at 70°F (21°C) and 50% RH

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Product Technical Data

Thickness (Mils [Microns])	Adhesive (+/- 10%)	1.9-2.1 (48-53) +/-0.1 (3)	ASTM D 3652

		Average 15 min		Average 3 days RT		Average 3 days 160°F		
		Oz/in	(N/m)	Oz/in	(N/m)	Oz/in	(N/m)	
Peel Average 90° angle 12"/min	Acrylic	-	-	71	(781)	-	-	ASTM D 3330 (Modified for dwell time) (All peels laminated to 2 mil foil)
	Glass	-	-	64	(704)	-	-	
	Polypropylene	-	-	26	(286)			
	Stainless Steel	47	(517)	69	(759)	109	(1199)	

Expected Shear (hours)	2.0 mil Clear Polyester	2.0 mil Aluminum Foil	ASTM D 3654 (1 hr. dwell, 1 sq. in. surface, 4 lb. load)
	20	25	

Tack (gm)	2.0 mil Clear Polyester	2.0 mil Aluminum Foil	Method A ASTM D 2979
	920	950	

Thickness (Mils [Microns])	Adhesive (+/- 10%)	3.9-4.1 (99-104) +/-0.2 (5)	ASTM D 3652

		Average 15 min		Average 3 days RT		Average 3 days 160°F		
		Oz/in	(N/m)	Oz/in	(N/m)	Oz/in	(N/m)	
Peel Average 90° angle 12"/min	Acrylic	-	-	92	(1012)	-	-	ASTM D 3330 (Modified for dwell time) (All peels laminated to 2 mil foil)
	Glass	-	-	76	(836)	-	-	
	Polypropylene	-	-	33	(363)			
	Stainless Steel	62	(682)	87	(957)	131	(1441)	

Expected Shear (hours)	4.0 mil Clear Polyester	4.0 mil Aluminum Foil	ASTM D 3654 (1 hr. dwell, 1 sq. in. surface, 4 lb. load)
	20	4	

Tack (gm)	4.0 mil Clear Polyester	4.0 mil Aluminum Foil	Method A ASTM D 2979
	1350	1030	

Product Technical Data: Humidity Resistance

Adhesion Retention	Adhesive on PM 200 Clear film 2 mil Clear Polyester	90° angle 12"/min 7 days + 24 hour recovery
	No visual change, 90% adhesion gain	All testing on SS panel at 100°F and 95% RH. 24 hour dwell time on SS panel before humidity exposure.

Product Technical Data: Chemical Resistance

	Solvent	Adhesive on PM 200 Clear film 2.0 mil clear polyester	
Adhesion Retention	1 hour at RT in Gasoline (unleaded)	Edge penetration 15% adhesion loss	90° angle 12"/min with 24 hour recovery
	1 hour at RT in MEK (Methyl Ethyl Ketone)	Edge penetration 15% adhesion loss	
	72 hours at 120°F (49°C) in Oil (SAE 10w-30)	No visual change, 20% adhesion gain	All testing on SS panel at 24 hour dwell time before immersion.
	72 hours at RT in Salt Water (6% by weight)	No visual change, 65% adhesion gain	
	100 hours at RT in Water	No visual change, 55% adhesion gain	

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Product Technical Data: UL Surface Test Results

Application Surface	Polycarbonate Face Stock Thickness (mm)	Application Use	Temperature Range	Additional Conditions	Polyester Face Stock Thickness (mm)	Application Use	Temperature Range	Additional Conditions
Acrylic Paint (AC PT)	.075-.508	I/O	80°C to -40°C	D/O	.025-.127	I/O	125°C to -40°C	O
Acrylic Powderd Pain (AC PDR PT)	.075-.508	I/O	80°C to -40°C	D/O				
Acrylonitrile Butadiene Styrene (ABS)	.075-.508	I/O	80°C to -40°C	D/O	.025-.127	I/O	80°C to -40°C	O
Alkyd Paint (AK PT)	.075-.508	I/O	80°C to -40°C	D/O	.025-.127	I/O	125°C to -40°C	O
Aluminum (AL)	.075-.508	I/O	100°C to -40°C	D/O	.025-.127	I/O	150°C to -40°C	O
Epoxy Paint (RP PT)	.075-.508	I/O	80°C to -40°C	D/O				
Epoxy Powder Paint (RP PDR PT)	.075-.508	I/O	80°C to -40°C	D/O				
Galvanized Steel (GS)	.075-.508	I/O	100°C to -40°C	D/O	.025-.127	I/O	125°C to -40°C	
Melamine (ME)	.075-.508	I/O	80°C to -40°C	D/O	.025-.127	I/O	80°C to -40°C	
Nylon - Polyamide (PA)	.075-.508	I/O	80°C to -40°C	D/O	.025-.127	I/O	80°C to -40°C	O
Phenolic - Phenol Formaldehyde (PH)	.075-.508	I/O	80°C to -40°C	D/O				
Polycarbonate (PC)					.025-.127	I/O	80°C to -40°C	
Polyester Paint (PER PT)	.075-.508	I/O	80°C to -40°C	D/O	.025-.127	I/O	125°C to -40°C	O
Polyester Powder Paint (PER PDR PT)	.075-.508	I/O	80°C to -40°C	D/O				
Polypropylene (PP)	.075-.508	I/O	80°C to -40°C	D/O	.025-.127	I	80°C	O
Polystyrene (PS)	.075-.508	I/O	80°C to -40°C	D/O	.025-.127	I/O	60°C to -40°C	
Polyurethane Paint (PUR PT)	.075-.508	I/O	80°C to -40°C	D/O				
Polyurethane Powder Paint (PUR PDR PT)	.075-.508	I/O	80°C to -40°C	D/O				
Porcelain (PRCLN)					.025-.127	I/O	125°C to -40°C	
Stainless Steel (SS)	.075-.508	I/O	100°C to -40°C	D/O	.025-.127	I/O	125°C to -40°C	
Unsaturated Polyester - Thermoset (UP)	.075-.508	I/O	80°C to -40°C	D/O	.025-.127	I/O	80°C to -40°C	

Product Technical Data: Ink Adhesion

Ink series	Facestock	Facestock Thickness (mm)	UL/CUL Regulation	Printing Process	Temperature Range	Indoor Use (Ink Color)	Outdoor Use (Ink Color)	Additional Conditions
Sericol "GSO" Series	Polycarbonate	.003 - .020	UL	Screen	-40°C to 100°C	All	All	O, D

Application Use	Additional Conditions Key	USR Standard- UL 969
I= Indoor, O= Outdoor I/O= Indoor and Outdoor	D= Occasional exposure to Detergents F2= Occasional exposure to Fuel Oil #2 G= Occasional exposure to Gasoline (splashing) K= Occasional exposure to Kerosene O= Occasional exposure to lubricating oils	UL- PGGU2.MH10170; UL - PGJI2.MH16635 CUL - PGJI8.MH16635; CUL-PGG48.MH10170 All tests performed on 1 to 4 mil transfer tapes

Standard Differential and Double-Faced Release Liners

200 Poly LA, Poly C2S
2.0 mil (52 microns) clear polyester liner is smooth for uniform adhesive wet-out. Conforms to tight angles and works well for automated assembly and robotic application. Ideal for roll-to-roll or roll-to-sheet.

Master Width 60"

55 LA K, 55 D/F K
3.2 mil (81 micron) white densified 55 lb. kraft liner for roll-to-roll converting. Ideal for rotary diecutting. Typical end-use applications include automotive underhood and safety/hazard and warning labels.

Master Width 60"

60 LA PFW, 60 D/F PFW
4.3 mil (109 micron) white polycoated 60 lb. layflat liner for roll-to-roll or roll-to-sheet converting. Provides excellent moisture stability for sheet processing. Typical end-use applications include graphic overlays.

Master Width 54" & 60"

84 LA PFT, 84 D/F PFT
6.4 mil (163 micron) tan polycoated 84 lb. layflat liner for roll-to-sheet converting. Ideal for kiss-cutting end tabs and nameplates. Typical end-use applications include thin and rigid nameplates.

Master Width 54" & 60"

Application Techniques

When applying pressure-sensitive adhesives it is necessary to provide pressure during lamination. Starting at the top peel back a 1" section of the release liner, align and apply. Using a plastic squeegee, stiff cardboard, or a soft cloth will help provide the necessary pressure at the point of lamination. Continue removing the release liner and smooth out with the squeegee. Heat can increase bond strength when bonding to metal parts (generally this same increase is observed at room temperature over longer times, weeks). For plastic parts, the bond strength is not enhanced with the addition of heat.

For best results, the application surface and the surrounding ambient atmosphere should be 50°F (10°C) or above. If applying the adhesive below 50°F (10°C), the application surface should be cleaned with isopropyl alcohol (rubbing alcohol) to insure good initial adhesion.

When bonding a thin, smooth, flexible material to a smooth surface, it is generally acceptable to use 2 mils of adhesive. If a texture is visible on one or both surfaces, the 4 mil adhesive would be suggested. If both materials are rigid, it may be necessary to use a thicker adhesive to successfully bond the components.

Product Performance and Suitability

All of the descriptive information, the typical performance data, and recommendations for the use of FLEXcon products shall be used only as a guide and do not reflect the specification or specification range for any particular property of the product. Furnishing such information is merely an attempt to assist you after you have indicated your contemplated use and shall in no event constitute a warranty of any kind by FLEXcon. All purchasers of FLEXcon products shall be responsible for independently determining the suitability of the material for the purpose for which it is purchased. No distributor, salesman, or representative of FLEXcon is authorized to give any warranty, guaranty, or make any representation in addition or contrary to the above.

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