



**Topcoat**

**Film**

**Adhesive**

**Liner**

***Adhesive  
Selection  
Guide***

## Adhesive Descriptions

Adhesive #	Comment/End Use
A-32	Permanent acrylic adhesive with medium tack and high shear. Bonds well to glass, low- and high-surface energy plastics, making it ideal for food and beverage labeling. Excellent clarity and wet-out characteristics.
A-32RW	Reworkable acrylic adhesive with low tack and high shear. Designed for high speed dispensing applications requiring rework time. Ideal for food and beverage labeling.
A-58	Removable acrylic adhesive with low-medium tack and medium shear. Designed for bus poster applications. Cleanly removable for up to one year from most smooth OEM surfaces. Will not damage paint on sound* OEM or repainted bus surfaces.
A-69	Removable/repositionable acrylic adhesive with very low tack and medium-high shear. Designed for bus wrap applications. Cleanly removable for up to one year from most smooth OEM surfaces. Will not damage paint on sound* OEM or repainted bus surfaces.
A-81	Permanent acrylic adhesive with low tack and high shear. Designed for food and beverage applications requiring good flow out.
A-107	Repositionable permanent acrylic adhesive with low tack and high shear.
A-109	Low adhesion removable acrylic adhesive with low tack and high shear. Offers clean removability when used with suggested overlaminates. Designed for graphic advertising for floors. Bonds well to ceramic, concrete, linoleum and lumber/wood surfaces.
A-120	Permanent acrylic adhesive with medium-high tack and medium shear. Designed for carpet graphics applications requiring good adhesion and tack.
A-136	Permanent acrylic adhesive with medium tack and high shear. Designed for full squeeze tube applications. Bonds well to low- and high-surface energy plastics without lifting, tunneling or flagging.
A-197	Permanent acrylic adhesive with medium tack and medium shear. Designed for automotive battery label applications requiring good balance of properties. Bonds well to low-surface energy plastics.
A-208	Permanent acrylic adhesive with medium tack and high shear. Designed for beverage labeling. Bonds well to glass, low- and high-surface energy plastics without lifting, tunneling or flagging. Also used as an overlaminating adhesive.
A-367	Permanent rubber based adhesive with high tack and low shear. Designed for outdoor walkway graphics applications. Bonds well to unsealed asphalt and concrete.
A-483	Permanent acrylic adhesive with medium tack and medium high shear. Designed for applications requiring high temperature resistance. High shear adhesive results in less oozing, edge lifting and shifting.

Adhesive #	Comment/End Use
A-787	Removable acrylic adhesive with low tack and low-medium shear. Designed for bus poster applications. Cleanly removable for up to one year from most smooth OEM surfaces without damaging the paint on sound OEM* or repainted bus surfaces.
Densil®	High performance permanent silicone adhesive with very low tack and high shear. Designed for applications requiring very high temperature resistance.
L-24S	Permanent acrylic adhesive with medium-high tack and medium shear. Designed for applications requiring good shrinkage and chemical resistance in UL recognized products. "L" denotes that the adhesive is part of a UL recognized product construction.
L-25	Permanent acrylic adhesive with medium-high tack and medium shear. Designed for applications requiring good shrinkage and chemical resistance in UL recognized products. "L" denotes that the adhesive is part of a UL recognized product construction.
L-44	Clear overlaminating permanent acrylic adhesive with medium tack and medium-high shear. Designed for applications requiring UL recognized clear overlaminating adhesive. "L" denotes that the adhesive is part of a UL recognized product construction.
L-46	Permanent acrylic adhesive with medium-high tack and medium shear. Designed for applications requiring good shrinkage and chemical resistance in UL recognized products. "L" denotes that the adhesive is part of a UL recognized product construction.
LTS-1	High performance permanent silicone adhesive with medium-high tack and very high shear. Designed for applications requiring cold temperature resistance.
V-10 & L-10	Permanent acrylic adhesive with medium tack and medium shear. Designed for applications requiring protection from ultraviolet light. Resists temperature extremes, abrasion and chemical exposure for maximum label protection. Also used as an overlaminating adhesive. "L" denotes that the adhesive is part of a UL recognized product construction.
V-12	Pigmented permanent acrylic adhesive with medium tack and medium shear. Available in a variety of custom colors for use in transfer tape applications.
V-20	Permanent acrylic adhesive with medium tack and medium shear. Designed for applications requiring economical product with good adhesion and good shrinkage resistance.
V-22 & L-22	Clear overlaminating permanent acrylic adhesive with medium-high tack and medium shear. "L" denotes that the adhesive is part of a UL recognized product construction.
V-23 & L-23	Permanent acrylic adhesive with medium-high tack and medium shear. Designed for applications requiring good shrinkage and chemical resistance. "L" denotes that the adhesive is part of a UL recognized product construction.

\* Sound paint is defined as possessing a 20 lb. per inch minimum peel bond between the paints and the paint-receptive surface

## Adhesive Descriptions

Adhesive #	Comment/End Use
V-29 & L-29	Permanent acrylic adhesive with medium tack and high shear. Designed for applications requiring clarity, excellent adhesive flow out, high shear, excellent plasticizer, and shrinkage and chemical resistance. Also used as an overlaminating adhesive. "L" denotes that the adhesive is part of a UL recognized product construction.
V-32	Permanent acrylic adhesive with medium tack and high shear. Bonds well to glass, low- and high-surface energy plastics without lifting, tunneling or flagging. Offers excellent clarity and wet-out characteristics.
V-38	Removable acrylic adhesive with medium tack and medium shear. Designed for non-critical removable label applications, such as shelf marking.
V-58	General purpose removable acrylic adhesive with low tack and low shear. Designed for removable applications such as removable/changeable decals. Provides a good bond with little or no adhesive residue upon removal.
V-63	Permanent UV resistant overlaminating acrylic adhesive with medium tack and high shear. Designed for applications requiring protection of printed graphics from ultraviolet light. Used in retail/P-O-P/tradeshows graphics and displays.
V-66 & L-66	Permanent acrylic adhesive with medium-high tack and medium shear. Designed for applications requiring good shrinkage and chemical resistance. "L" denotes that the adhesive is part of a UL recognized product construction.
V-68	General purpose removable/repositionable acrylic adhesive with low tack and low shear. Designed for removable applications, such as removable shelf marking labels.
V-80	Clear permanent acrylic adhesive with medium tack and medium shear. Designed for applications requiring high adhesion removability from stainless steel, such as lens pad applications.
V-81	Permanent acrylic adhesive with low tack and medium-high shear. Designed for use in personal care and household and chemical applications. Ideal for rigid, semi-squeeze and full squeeze container labeling.
V-88 & L-88	Permanent rubber based adhesive with very high tack and high shear. Ideal for tamper-evident/security applications. "L" denotes that the adhesive is part of a UL recognized product construction.
V-90	Clear overlaminating permanent acrylic adhesive with medium tack and medium-high shear. Designed for applications requiring excellent sulfuric acid resistance for battery label applications. Bonds well to printed surfaces.
V-94	Permanent acrylic adhesive with low tack and medium shear.
V-98	General purpose permanent rubber based adhesive with very high tack and medium shear. Bonds well to low-surface energy plastics, ideal for battery label applications.

Adhesive #	Comment/End Use
V-95	Permanent acrylic adhesive with low tack and high shear. Designed for applications requiring autoclaving and chemical resistance adhesives, such as on glass and plastic vials. Provides excellent clarity, wet-out characteristics and resistance to product contents.
V-122 & L-122	Clear overlaminating permanent acrylic adhesive with medium-high tack and low shear. Designed for applications requiring a clear overlaminating adhesive with good adhesive flow out. "L" denotes that the adhesive is part of a UL recognized product construction.
V-124	Clear permanent acrylic adhesive with medium tack and medium shear. Designed for applications requiring cold temperature resistance.
V-126	Permanent acrylic adhesive with medium tack and very high shear. Bonds well to a variety of surfaces, ideal for stickers and decals.
V-130	High-performance permanent acrylic adhesive with medium tack and high shear. Designed for applications requiring resistance to high temperatures. Bonds well to metal and paint.
V-133	Removable/repositionable acrylic adhesive with medium tack and high shear. Designed for removable and resealable applications.
V-156	Permanent acrylic adhesive with very high tack and low shear. Designed for applications such as pharmaceutical and tamper-evident labels. Good cold temperature, chemical and humidity resistance. "L" denotes that the adhesive is part of a UL recognized product construction.
V-157 & L-157	Permanent acrylic adhesive with medium tack and medium-low shear. Designed for applications requiring a multi-purpose economical permanent adhesive. Also used as an overlaminating adhesive. "L" denotes that the adhesive is part of a UL recognized product construction.
V-176	Permanent acrylic adhesive with very high tack and low shear. Designed for applications requiring soft adhesive with good flow and good bond to a variety of fabrics.
V-224 & L-224	Permanent acrylic adhesive with medium-high tack and low-medium shear. Ideal multi-purpose economical option designed for applications requiring a good balance of properties. Bonds well to a variety of surfaces and offers good chemical resistance. "L" denotes that the adhesive is part of a UL recognized product construction.
V-224X	Pigmented permanent acrylic adhesive available in a variety of custom colors.
V-232	Permanent acrylic adhesive with low-medium tack and high shear. Designed for pharmaceutical label applications requiring autoclaving. Offers excellent clarity and wet-out characteristics.
V-233	Removable acrylic adhesive with medium tack and high shear. Designed for removable and resealable applications.

## Adhesive Descriptions

Adhesive #	Comment/End Use
V-253X	Pigmented permanent acrylic adhesive with medium tack and medium shear. Available in a variety of custom colors, ideal for sticker and decal applications.
V-302LP	Removable acrylic adhesive with low tack and low shear. Used in applications for retail/P-O-P/tradeshow displays and graphics.
V-302ULP	Ultra low adhesion removable acrylic adhesive with very low tack and low shear.
V-304	Permanent acrylic adhesive with medium-high tack and medium shear. Designed for general purpose transfer tapes requiring good adhesion and chemical resistance.
V-305 & L-305	High performance permanent acrylic adhesive with low tack and high shear. Designed for membrane switch applications. Can be repositioned within first few minutes of application for easy correction of assembly mistakes. "L" denotes that the adhesive is part of a UL recognized product construction.
V-312	Low adhesion removable acrylic adhesive with low tack and high shear.
V-314	Low adhesion removable acrylic adhesive with very low tack and low shear.
V-327	Low adhesion repositionable/removable acrylic adhesive with low tack and medium shear. Ideal for retail/P-O-P/tradeshow applications and window advertising. Removes cleanly with little or no adhesive residue.
V-330	Removable/repositionable acrylic adhesive with medium tack and medium shear. Designed for shelf-marking labels.
V-344 & L-344	Permanent acrylic adhesive with high tack and medium shear. Designed for applications requiring good shrinkage and chemical resistance. Provides adhesion to a variety of surfaces and resists cold flow and ooze. "L" denotes that the adhesive is part of a UL recognized product construction.
V-344DL	Permanent acrylic adhesive with medium-high tack and medium shear. Designed for drum labeling applications can be applied at low temperatures. Resists cold flow and ooze, gaining efficiencies in diecutting and dispensing.
V-367	Permanent rubber based adhesive with high tack and low shear. Designed for LSE and other difficult to adhere to surfaces.
V-378 & L-378	Permanent acrylic adhesive with very high tack and low shear. Ideal for a variety of low-surface energy plastics. "L" denotes that the adhesive is part of a UL recognized product construction.
V-402 & L-402	Permanent acrylic adhesive with low tack and high shear. Designed for applications requiring resistance to high temperatures, ideal for printed circuit board labels. "L" denotes that the adhesive is part of a UL recognized product construction.
V-417	Permanent acrylic adhesive with high tack and high shear. Designed for high performance transfer tape applications.
V-454	Low adhesion removable acrylic adhesive with low tack and low shear.

Adhesive #	Comment/End Use
V-465	Permanent acrylic adhesive with low-medium tack and low-medium shear. Designed for applications requiring an economical general purpose adhesive. Also used as an overlaminating adhesive.
V-606 & L-606	Permanent acrylic adhesive with medium tack and high shear. Designed for applications requiring good adhesion to polypropylene and polyethylene, as well as chemical resistance. Ideal for use on rough textured surfaces. "L" denotes that the adhesive is part of a UL recognized product construction.
V-778	Permanent acrylic adhesive with high tack and medium shear. Used in applications for automotive underhood labels.

# Adhesive Performance

ADHESIVE TYPE & CODE NUMBER		BASIC ADHESION PROPERTIES			ENVIRONMENTAL PERFORMANCE				TEMPERATURE RANGE ON STAINLESS STEEL			RECOMMENDATIONS	KEY FEATURES	
TYPE	CODE NO.	Tack	Peel		Shear	Resistance to:				Low °F (°C)	High °F (°C)	Min. App. Temp. °F (°C)		
			INIT <sup>1</sup>	ULT <sup>2</sup>		CHEMICAL	UV	HEAT	HUMIDITY					
ACRYLIC	V-10	3	3	5	M	5	5	5	5	-40° (-40°)	302° (150°)	50° (10°)	Not for ELV or PLV vinyl	Clear, good plasticizer resistance
	L-10 <sup>†</sup>	3	3	5	M	5	5	5	5	-40° (-40°)	302° (150°)	50° (10°)	Not for ELV or PLV vinyl	Clear, good plasticizer resistance
	V-12*	3	2	4	M	4	3-4	4	4	-40° (-40°)	302° (150°)	50° (10°)		White opaque, general purpose
	V-22	4	3	4	M	5	5	5	6	-40° (-40°)	302° (150°)	32° (0°)		Ultradclear for overlaminating
	L-22 <sup>†</sup>	4	3	4	M	5	5	5	6	-40° (-40°)	302° (150°)	32° (0°)	Not for use on vinyl	Ultradclear for overlaminating
	V-23 (P) <sup>3</sup>	4	3	5	M	5	5	5	6	-40° (-40°)	302° (150°)	50° (10°)	Not for use on vinyl	General purpose
	L-23 <sup>†</sup>	4	3	5	M	5	5	5	6	-40° (-40°)	302° (150°)	50° (10°)	Not for use on vinyl	for non-plasticized films
	V-23 (V) <sup>4</sup>	3	3	4	M	5	4	4	6	-40° (-40°)	302° (150°)	50° (10°)		General purpose for plasticized vinyl
	L-24S <sup>†</sup>	3	3	5	M	4	5	5	5	-40° (-40°)	176° (80°)	50° (10°)	For sheet form	General purpose for plasticized vinyl
	V-29	3	3	5	H	5	6	5	6	-40° (-40°)	302° (150°)	50° (10°)		Excellent plasticizer resistance; autoclavable
	L-29 <sup>†</sup>	3	3	5	H	5	6	5	6	-40° (-40°)	302° (150°)	50° (10°)		Excellent plasticizer resistance; autoclavable; overlaminating
	A-32	3	3	4	H	5	5	4	5	-40° (-40°)	302° (150°)	50° (10°)		General purpose; glass bottle; passes ice chest and pasteurization
	V-32	3	3	4	H	5	5	4	5	-40° (-40°)	302° (150°)	50° (10°)		General purpose; prime label
	A-32RW	2	2	4	H	5	5	4	5	-40° (-40°)	302° (150°)	50° (10°)		Good open/rework time; general purpose; glass bottle
	V-38	3	2	4	M	5	4	4	6	-40° (-40°)	302° (150°)	50° (10°)	For sheet form	<b>Semi-removable for shelf marking</b>
	L-44 <sup>†</sup>	4	3	4	M	5	5	5	6	-40° (-40°)	302° (150°)	32° (0°)		Ultradclear for overlaminating
	L-46 <sup>†</sup>	4	3	5	M	5	5	5	6	-40° (-40°)	302° (150°)	50° (10°)	Not for use on vinyl	General purpose for non-plasticized films
	A-58	2	1	3	L	5	4	5	6	-20° (-29°)	302° (150°)	50° (10°)	For use on vinyl	<b>Removable, bus signage</b>
	V-58	2	1	3	L	5	4	5	6	-20° (-29°)	302° (150°)	50° (10°)	For use on vinyl	<b>General purpose, removable</b>
	V-63	3	3	5	H	5	6	5	6	-40° (-40°)	302° (150°)	50° (10°)		UV resistant; overlaminating
	V-66	4	4	6	M	5	5	5	6	-40° (-40°)	302° (150°)	50° (10°)	Not for use on vinyl	Medium to high tack; general purpose
	V-68	2	1	3	L	5	4	5	6	-20° (-29°)	302° (150°)	50° (10°)	For use on vinyl	<b>Removable for shelf marking</b>
	A-69	1	1	1	M-H	1	3	2	3	-20° (-29°)	302° (150°)	50° (10°)		<b>Removable, bus wrap</b>
	A-81	2	2	3-4	H	4	2	5	3	-40° (-40°)	176° (80°)	50° (10°)		General purpose, passes ice chest a and low-temp pasteurization
V-81	2	2	4	M-H	4	4	5	3	-40° (-40°)	176° (80°)	50° (10°)		General purpose, prime label	
V-94	2	3	4	M	6	6	5	6	-40° (-40°)	302° (150°)	50° (10°)	Not for plasticized film	Permanent for acrylic films	
V-95	2	2	4	H	6	5	6	5	-40° (-40°)	302° (150°)	50° (10°)	Not for plasticized film	Clear, high temp.; autoclavable	
A-109	1-2	1	1	M	1	3	2	1	-40° (-40°)	302° (150°)	50° (10°)		Cleanly removable for floor graphics	
V-122	4	3	5	L	5	4	5	4	-40° (-40°)	302° (150°)	50° (10°)	Not for use on vinyl	Ultradclear for overlaminating	
L-122 <sup>†</sup>	4	3	5	L	5	4	5	4	-40° (-40°)	302° (150°)	50° (10°)	Not for use on vinyl	Ultradclear for overlaminating	
V-126*	3	3	5	H	6	4	6	5	-40° (-40°)	302° (150°)	50° (10°)		High performance	

ADHESIVES COATED AT 1.0 MIL (25 MICRONS) THICKNESS AND TESTED ON 2.0 MIL (51 MICRONS) CLEAR POLYESTER FILM. EXCEPTIONS INCLUDE: L-24S AND L-26 WERE TESTED ON 3.5 MIL (89 MICRONS) WHITE VINYL, A-81 AND V-81 WERE TESTED ON 2.0 MIL HARD CLEAR POLYPROPYLENE. SEE PAGE 5 FOR SPECIFIC TEST METHODS USED.

<sup>1</sup> Initial peel - 15 minute dwell time on stainless steel panel at room temperature  
<sup>2</sup> Ultimate peel - 72 hour dwell time on stainless steel panel at room temperature

<sup>3</sup> (P) for polyester films  
<sup>4</sup> (V) for vinyl films

\*"L" adhesives denote UL-Recognized adhesives. "L" adhesives listed on this chart may not be UL Recognized for listed temperature range and surface. "L" adhesives are included on this chart to compare performance values to our "V" adhesives only. Please reference our UL Guide for specific UL Recognition for these "L" adhesives. FLEXcon products are also listed under UL file numbers MH10170 and MH16635(N). A variety of FLEXcon products have CSA acceptance, and/or CUL acceptance. Please contact your Business Team for more information.

• Adhesive can be ordered as a laminating adhesive.

**Tack**  
**1 Very Low**  
 0 up to 100 g/sq.cm.  
**2 Low**  
 101 up to 400 g/sq.cm.  
**3 Medium**  
 401 up to 550 g/sq.cm.  
**4 Medium High**  
 551 up to 700 g/sq.cm.  
**5 High**  
 701 up to 800 g/sq.cm.  
**6 Very High**  
 More than 801 g/sq.cm.

**Peel**  
**1 Very Low**  
 0 up to 14 oz/in (0-154 N/m)  
**2 Low**  
 15 up to 34 oz/in (165-374 N/m)  
**3 Medium**  
 35 up to 54 oz/in (385-594 N/m)  
**4 Medium High**  
 55 up to 74 oz/in (605-814 N/m)  
**5 High**  
 75 up to 94 oz/in (825-1034 N/m)  
**6 Very High**  
 More than 95 oz/in (1045 N/m)

**Shear**  
**L = Low**  
 <10 hrs  
**M = Medium**  
 >10 <100 hrs  
**H = High**  
 >100 hrs

**Chemical, Heat and Humidity Ratings**  
**1 Poor**  
 More than 50% adhesion loss  
**2 Fair**  
 20 to 50% adhesion loss  
**3 Good**  
 10 to 20% adhesion loss  
**4 Very Good**  
 5 to 10% adhesion loss  
**5 Excellent**  
 -5 to +5% adhesion change  
**6 Superior**  
 +5% adhesion gain

**Chemical Resistance:**  
 Overall average of Peel Performance retained after exposure to chemicals vs. 72 hrs. on Stainless Steel panel at room temperature.  
**Cleaning Solutions:**  
 Isopropyl Alcohol • Gasoline • Toluene • Oil (SAE 10W-30) • Acetic Acid (5%) • Water  
**Humidity Resistance:**  
 Overall average of Peel Performance retained after exposure to 100°F and 95% RH for 1 Day and 1 Week vs. 72 hrs. on Stainless Steel panel at room temperature.

# Adhesive Performance

ADHESIVE TYPE & CODE NUMBER		BASIC ADHESION PROPERTIES			ENVIRONMENTAL PERFORMANCE				TEMPERATURE RANGE ON STAINLESS STEEL			RECOMMENDATIONS	KEY FEATURES	
TYPE	CODE NO.	Tack	Peel		Shear	Resistance to:				Low °F (°C)	High °F (°C)	Min. App. °F (°C)		
			INIT <sup>1</sup>	ULI <sup>2</sup>		CHEMICAL	UV	HEAT	HUMIDITY					
ACRYLIC	A-136	3	3	4	H	5	5	4	5	-40° (-40°)	302° (150°)	50° (10°)		Aggressive, high-performance for full-squeeze tube
	V-156	6	3	5	L	5	5	5	5	-40° (-40°)	302° (150°)	32° (0°)		Very aggressive, low temperature
	L-156†	6	3	5	L	5	5	5	5	-40° (-40°)	302° (150°)	32° (0°)		Very aggressive, low temperature
	V-157	4	4	5	L	4	4	5	4	-40° (-40°)	257° (125°)	50° (10°)	Not for use on vinyl	Ultraclear for overlaminating
	L-157†	4	4	5	L	4	4	5	4	-40° (-40°)	257° (125°)	50° (10°)	Not for use on vinyl	Ultraclear for overlaminating
	V-176	6	5	6	L	5	5	5	5	-40° (-40°)	302° (150°)	32° (0°)		Very aggressive, acid free
	V-224	3-4	4	5	L-M	5	5	4	5	-40° (-40°)	302° (150°)	50° (10°)		General purpose
	L-224†	3-4	4	5	L-M	5	5	4	5	-40° (-40°)	302° (150°)	50° (10°)		General purpose
	V-232	3	3	4	H	5	5	4	5	-40° (-40°)	302° (150°)	50° (10°)		Pharmaceutical; autoclavable
	V-253X	3	2	4	M	4	3-5	4	5	-40° (-40°)	302° (150°)	50° (10°)		Custom color, pigmented adhesive
	V-302LP	2	2	3	L	1	4	5	5	-20° (-29°)	302° (150°)	50° (10°)		<b>Low adhesion, cleanly removable</b>
	V-302ULP	1	1	1	L	1	2	2	2	-20° (-29°)	302° (150°)	50° (10°)		<b>Ultra low adhesion, premask</b>
	V-305	2	2	4-5	H	6	5	5	5	-40° (-40°)	302° (150°)	50° (10°)		Membrane switch, high temperature, high performance
	L-305†	2	2	4-5	H	6	5	5	5	-40° (-40°)	302° (150°)	50° (10°)		Membrane switch, high temperature, high performance
	V-314	1	1	1	L	1	3	2	1	-20° (-29°)	302° (150°)	50° (10°)		<b>Ultra removable, acid free</b>
	V-327	1-2	1	1	M	1	3	2	1	-40° (-40°)	302° (150°)	50° (10°)		<b>Low adhesion, removable</b>
	V-330	3	3	4	M	3	3	4	3	-40° (-40°)	302° (150°)	50° (10°)		Reworkable for prime label; removable for shelf marking
	V-344*	5	3	5	M	5	4	5	5	-40° (-40°)	302° (150°)	50° (10°)		General purpose
	L-344†*	5	3	5	M	5	4	5	5	-40° (-40°)	302° (150°)	50° (10°)		General purpose
	V-344DL	4	3	5	M	5	4	5	5	-40° (-40°)	302° (150°)	32° (0°)		Drum label, low temperature application
	V-378 bonds	6	5	6	L	5	4	5	5	-40° (-40°)	302° (150°)	32° (0°)		Aggressive, high performance; well to low surface energy surfaces
	L-378† bonds	6	5	6	L	5	4	5	5	-40° (-40°)	302° (150°)	32° (0°)		Aggressive, high performance; well to low surface energy surfaces
	V-402*	2	3	4	H	6	5	5	5	-40° (-40°)	302° (150°)	50° (10°)		High temperature, high performance
L-402†*	2	3	4	H	6	5	5	5	-40° (-40°)	302° (150°)	50° (10°)		High temperature, high performance	
V-417*	5	3	4	H	4	4	5	5	-40° (-40°)	302° (150°)	50° (10°)		High temperature, high performance	
V-465	3	2	3-4	M	3	4	4	3	-40° (-40°)	176° (80°)	50° (10°)		General purpose	
L-465†	3	2	3-4	M	3	4	4	3	-40° (-40°)	176° (80°)	50° (10°)		General purpose	
V-606*	3	3	5	H	5	5	6	5	-40° (-40°)	302° (150°)	50° (10°)		Aggressive, high performance	
L-606†*	3	3	5	H	5	5	6	5	-40° (-40°)	302° (150°)	50° (10°)		Aggressive, high performance	
RUBBER	V-88	6	6	6	H	5	1	5	4	-20° (-29°)	200° (93°)	50° (10°)	Not for use on vinyl	High performance
	L-88†	6	6	6	H	5	1	5	4	-20° (-29°)	176° (80°)	50° (10°)	Not for use on vinyl	High performance, fire extinguisher
	V-98	6	3	5	M	5	1	4	4	-20° (-29°)	200° (93°)	50° (10°)		General purpose
	V-367	6	5	6	L	5	1	2	4	-20° (-29°)	200° (93°)	50° (10°)		Very aggressive
SILICONE	Densil®	1	3	4	H	5	6	6	5	-300° (-185°)	302° (150°)	50° (10°)		High performance silicone

ADHESIVES COATED AT 1.0 MIL (25 MICRONS) THICKNESS – EXCEPTIONS INCLUDE V-253X COATED AT 1.7 MIL (43 MICRONS), AND V-367 COATED AT 1.5 MIL (38 MICRONS). ALL WERE TESTED ON 2.0 MIL (51 MICRONS) CLEAR POLYESTER FILM – EXCEPTIONS INCLUDE: L-88 WAS TESTED ON 3.5 MIL (89 MICRONS) WHITE DESTRUCT POLYETHYLENE FILM. SEE PAGE 5 FOR SPECIFIC TEST METHODS USED.

<sup>1</sup> Initial peel - 15 minute dwell time on stainless steel panel at room temperature

<sup>2</sup> Ultimate peel - 72 hour dwell time on stainless steel panel at room temperature

†“L” adhesives denote UL-Recognized adhesives. “L” adhesives listed on this chart may not be UL Recognized for listed temperature range and surface. “L” adhesives are included on this chart to compare performance values to our “V” adhesives only. Please reference our UL Guide for specific UL Recognition for these “L” adhesives. FLEXcon products are also listed under UL file numbers MH10170 and MH16635(N). A variety of FLEXcon products have CSA acceptance, and/or CUL acceptance. Please contact your Business Team for more information.

\* Adhesive can be ordered as a laminating adhesive.

## UV Resistance

### 1 Poor

Adhesive turns very dark brown and/or complete loss of adhesion

### 2 Fair

Adhesive turns brown, some adhesion loss/chalking and/or cracking of film

### 3 Good

Adhesive turns yellowish, some adhesion loss but no effect on film

### 4 Very Good

Slight discoloration, no adhesion loss

### 5 Excellent

Very slight discoloration

### 6 Superior

No change

1000 hours in QUV unit with 8 hour light, 4 hour humidity cycle and/or up to 1 year exposure in Florida.

Note: UV resistance of adhesive is also dependent on film. Service temperature limits are also dependent on film and application surface. Depending on film and surface it could be higher or lower.



# Adhesive Performance for Polyester Film/Adhesive Combinations

ADHESIVE TYPE AND CODE NUMBER		GLASS <sup>1</sup> /METALS	HIGH SURFACE ENERGY PLASTICS	LOW SURFACE ENERGY PLASTICS
		<ul style="list-style-type: none"> <li>● Stainless Steel<sup>1</sup></li> <li>● Aluminum</li> <li>● Copper</li> <li>● Tin</li> <li>● Zinc</li> <li>● Lead</li> </ul>	<ul style="list-style-type: none"> <li>● Alkyd Enamel</li> <li>● Polycarbonate</li> <li>● Polyester</li> <li>● Acrylic<sup>1</sup></li> <li>● Melamine</li> <li>● ABS</li> <li>● Vinyl</li> <li>● Nylon</li> <li>● Kapton*</li> </ul>	<ul style="list-style-type: none"> <li>● Polypropylene<sup>1</sup></li> <li>● Polyethylene</li> <li>● Polystyrene</li> <li>● Tedlar*</li> <li>● PVA</li> <li>● EVA</li> <li>● Acetal</li> </ul>
TYPE	CODE NO.	SURFACE ENERGY GREATER THAN 50 DYNES/CM <sup>2</sup>	SURFACE ENERGY: 35 TO 45 DYNES/CM <sup>2</sup>	SURFACE ENERGY: 30 TO 35 DYNES/CM <sup>2</sup>
<b>ACRYLIC</b>	V-10	4.5	4.5	1.5
	L-10 <sup>†</sup>	4.5	4.5	1.5
	V-12*	4.0	4.5	1.0
	V-20	4.0	4.0	1.5
	V-22	3.5	3.0	2.0
	L-22 <sup>†</sup>	3.5	3.0	2.0
	V-23 (P) <sup>2</sup>	4.5	4.5	2.5
	L-23 <sup>†</sup>	4.5	4.5	2.5
	V-23 (V) <sup>3</sup>	4.0	4.5	1.5
	L-24S <sup>†</sup>	4.5	4.5	1.5
	V-29	4.5	5.0	1.5
	L-29 <sup>†</sup>	4.5	5.0	1.5
	A-32	4.0	4.5	1.5
	V-32	4.0	4.5	1.5
	A-32RW	3.5	4.0	1.5
	<b>V-38</b>	4.0	4.0	1.5
	L-44 <sup>†</sup>	3.0	3.0	2.0
	L-46 <sup>†</sup>	4.5	4.5	2.0
	<b>A-58</b>	3.0	3.0	1.0
	<b>V-58</b>	3.0	3.0	1.0
	V-63	4.5	5.0	1.5
	V-66	5.0	4.5	2.5
	<b>V-68</b>	3.0	3.0	1.0
	<b>A-69</b>	1.0	1.0	0.5
	A-81	3.5	3.5	1.0
	V-81	4.0	4.0	1.0
	V-94	3.5	3.5	1.5
	V-95	3.5	3.5	1.0
	A-109	1.5	1.5	0.5
	V-122	4.5	5.0	3.0
	L-122 <sup>†</sup>	4.5	5.0	3.0
	V-126	4.5	4.0	1.5
	A-136	4.0	4.5	1.5
	V-156	4.5	5.0	2.5
	L-156 <sup>†</sup>	4.5	5.0	2.5

ADHESIVES COATED AT 1.0 MIL (25 MICRONS) THICKNESS AND TESTED ON 2.0 MIL (51 MICRONS) CLEAR POLYESTER FILM. EXCEPTIONS INCLUDE: L-24S AND L-26 WERE TESTED ON 3.5 MIL (89 MICRONS) WHITE VINYL, A-81 AND V-81 WERE TESTED ON 2.0 MIL HARD CLEAR POLYPROPYLENE. SEE PAGE 5 FOR SPECIFIC TEST METHODS USED.

<sup>1</sup> Denotes application surfaces tested

<sup>2</sup> (P) for polyester films

<sup>3</sup> (V) for vinyl films

<sup>†</sup> "L" adhesives denote UL-Recognized adhesives. "L" adhesives listed on this chart may not be UL Recognized for listed temperature range and surface. "L" adhesives are included on this chart to compare performance values to our "V" adhesives only. Please reference our UL Guide for specific UL Recognition for these "L" adhesives. FLEXcon products are also listed under UL file numbers MH10170 and MH16635(N). A variety of FLEXcon products have CSA acceptance, and/or CUL acceptance. Please contact your Business Team for more information.

\*Kapton and Tedlar are registered trademarks of E.I. DuPont Company.

• Adhesive can be ordered as a laminating adhesive.

## 180° Peel

**1 Very Low**  
0 up to 14 oz/in (0-154 N/m)

**2 Low**  
15 up to 34 oz/in (165-374 N/m)

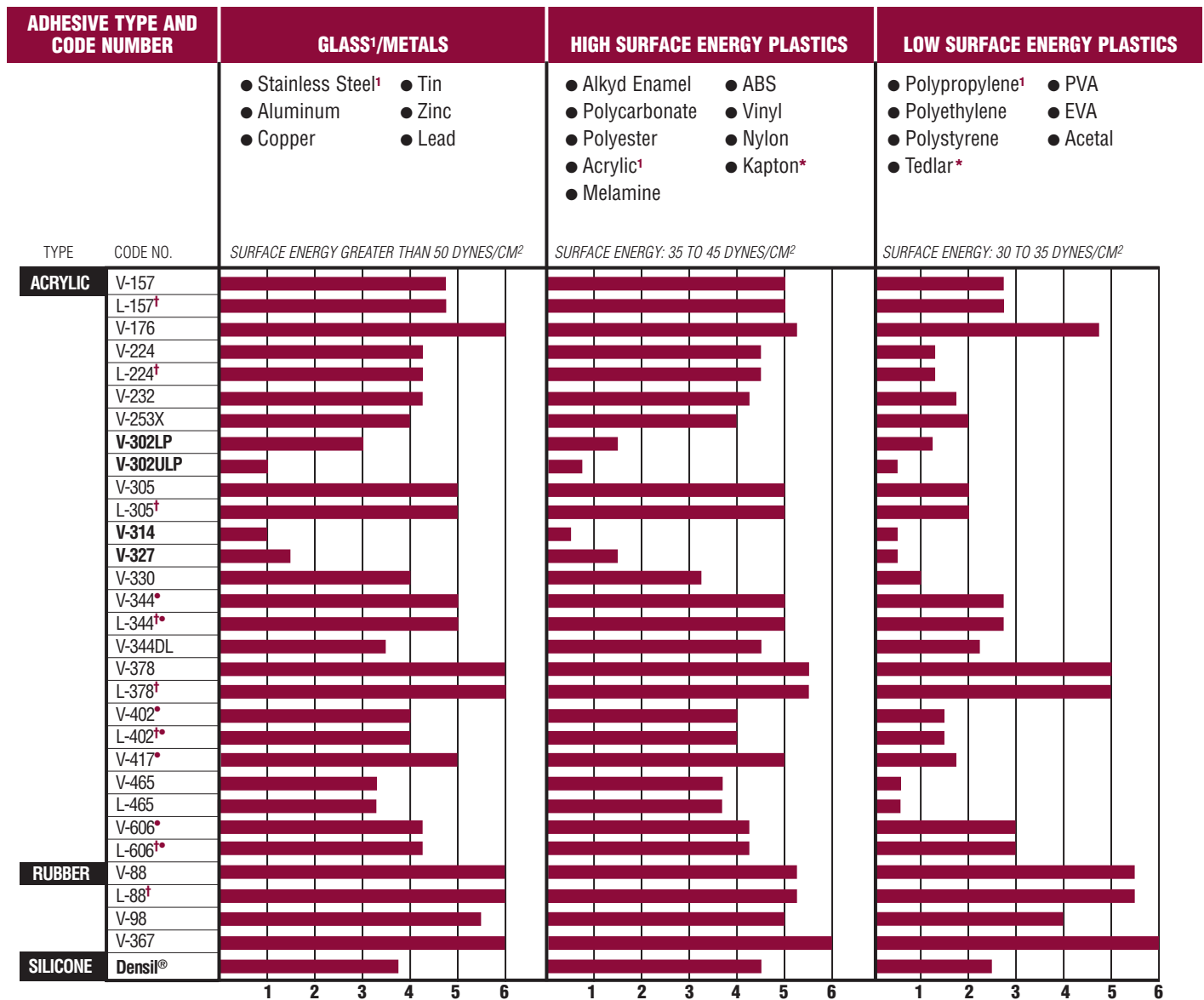
**3 Medium**  
35 up to 54 oz/in (385-594 N/m)

**4 Medium High**  
55 up to 74 oz/in (605-814 N/m)

**5 High**  
75 up to 94 oz/in (825-1034 N/m)

**6 Very High**  
More than 95 oz/in (1045 N/m)

# Adhesive Performance for Polyester Film/Adhesive Combinations



ADHESIVES COATED AT 1.0 MIL (25 MICRONS) THICKNESS – EXCEPTIONS INCLUDE V-253X COATED AT 1.7 MIL (43 MICRONS), AND V-367 COATED AT 1.5 MIL (38 MICRONS); ALL ADHESIVES TESTED ON 2.0 MIL (51 MICRONS) CLEAR POLYESTER FILM. CERTAIN ADHESIVES MAY NOT BE RECOMMENDED FOR POLYESTER FILM. PLEASE CONTACT YOUR BUSINESS TEAM FOR MORE INFORMATION. SEE BELOW FOR SPECIFIC TEST METHODS USED.

<sup>1</sup> Denotes application surfaces tested

<sup>†</sup>“L” adhesives denote UL-Recognized adhesives. “L” adhesives listed on this chart may not be UL Recognized for listed temperature range and surface. “L” adhesives are included on this chart to compare performance values to our “V” adhesives, only. Please reference our UL Guide for specific UL Recognition for these “L” adhesives. FLEXcon products are also listed under UL file numbers MH10170 and MH16635(N). A variety of FLEXcon products have CSA acceptance and/or CUL acceptance. Please contact your Business Team for more information.

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• Adhesive can be ordered as a laminating adhesive.

## 180° Peel

### 1 Very Low

0 up to 14 oz/in (0-154 N/m)

### 2 Low

15 up to 34 oz/in (165-374 N/m)

### 3 Medium

35 up to 54 oz/in (385-594 N/m)

### 4 Medium High

55 up to 74 oz/in (605-814 N/m)

### 5 High

75 up to 94 oz/in (825-1034 N/m)

### 6 Very High

More than 95 oz/in (1045 N/m)

## TEST METHODS USED

**TACK** ASTM 2979 (Probe)  
The probe comes in contact with the surface of the adhesive. As the probe is pulled away, the force required to remove the adhesive is measured in gms/cm<sup>2</sup>.

**PEEL** ASTM D 903  
Peel adhesion test for single-sided pressure-sensitive coated films (tapes). A 1" x 5" strip of material is applied to the application surface (stainless steel, acrylic, polypropylene). After a dwell time of 15 minutes for initial peel and 72 hours for ultimate peel, a 180° angle peel is taken at 12"/minute.

**SHEAR** ASTM D 3654 Method A  
A measure of the internal or cohesive strength of the adhesive. A 1 sq. inch area of test sample is applied to stainless steel panel and after 1 hour dwell time at room temperature, 4 lbs. of static load is applied at 178° angle. Shear is measured in hours.



# Adhesive Performance for Most Common Film/Adhesive Combinations

FILM/ADHESIVE COMBINATION		BASIC ADHESION PROPERTIES			ENVIRONMENTAL PERFORMANCE				TEMPERATURE RANGE ON STAINLESS STEEL				RECOMMENDATIONS	KEY FEATURES		
FILM	ADHESIVE	Tack	Peel	Shear	Resistance to:				Low	High	Min. App. Temp.					
					CHEMICAL	UV	HEAT	HUMIDITY						°F	(°C)	°F
V 400 FW	V-10	3	3 5	M	4	5	5	5	-40°	(-40°)	176°	(80°)	50°	(10°)	Not for ELV or PLV vinyl	General purpose for plasticized vinyl
V 400 FW	L-10 <sup>†</sup>	3	3 5	M	4	5	5	5	-40°	(-40°)	176°	(80°)	50°	(10°)	Not for ELV or PLV vinyl	Clear, good plasticizer resistance
PM 200 C	V-12*	3	2 4	M	4	3-4	4	4	-40°	(-40°)	302°	(150°)	50°	(10°)		White opaque, general purpose
V 400 FW	V-20	3	2-3 4	L-M	3	5	4	3	-40°	(-40°)	176°	(80°)	50°	(10°)		Low cost, permanent
OM 200 C	V-22	4	3 4	M	5	5	5	6	-40°	(-40°)	257°	(125°)	32°	(0°)		Ultraclear for overlaminating
OM 200 C	L-22 <sup>†A</sup>	4	3 4	M	5	5	5	6	-40°	(-40°)	257°	(125°)	32°	(0°)	Not for use on vinyl	Ultraclear for overlaminating
PM 200 C	V-23 (P) <sup>3</sup>	4	3 5	M	5	5	5	6	-40°	(-40°)	302°	(150°)	50°	(10°)	Not for use on vinyl	General purpose
PM 200 C	L-23 <sup>†</sup>	4	3 5	M	5	5	5	6	-40°	(-40°)	302°	(150°)	50°	(10°)	Not for use on vinyl	for non-plasticized films
V 400 FW	V-23(V) <sup>4</sup>	3	3 5	L-M	4	5	5	5	-40°	(-40°)	176°	(80°)	50°	(10°)		General purpose for plasticized vinyl
V 400 FW	L-24S <sup>†</sup>	3	3 5	M	4	5	5	5	-40°	(-40°)	176°	(80°)	50°	(10°)	For sheet form	General purpose for plasticized vinyl
V 400 FW	V-29	2	3 5	M-H	5	5	5	5	-40°	(-40°)	176°	(80°)	50°	(10°)		Excellent plasticizer resistance; autoclavable
V 400 FW	L-29 <sup>†</sup>	2	3 5	M-H	5	5	5	5	-40°	(-40°)	176°	(80°)	50°	(10°)		Excellent plasticizer resistance; autoclavable, overlaminating
PP 200 HC	A-32	3	3 4	H	5	1	4	5	-40°	(-40°)	176°	(80°)	50°	(10°)		General purpose, glass bottle; passes ice chest and pasteurization
PP 200 HC	V-32	3	3 4	H	5	1	4	5	-40°	(-40°)	176°	(80°)	50°	(10°)		General purpose, prime label
PP 200 HC	A-32RW	2	2 4	H	5	1	4	5	-40°	(-40°)	176°	(80°)	50°	(10°)		Good open/rework time; general purpose, glass bottle
V 400 FW	V-38	3	2 4	M	4	5	5	5	-20°	(-29°)	176°	(80°)	50°	(10°)	For sheet form	<b>Semi-removable, shelf marking adhesive</b>
OM 200 C	L-44 <sup>†</sup>	4	3 4	M	5	5	5	6	-40°	(-40°)	302°	(150°)	32°	(0°)		Ultraclear overlaminating
PM 200 C	L-46 <sup>†</sup>	4	3 5	M	5	5	5	6	-40°	(-40°)	302°	(150°)	50°	(10°)	Not for use on vinyl	For non-plasticized films
V 400 FW	Opq. A-58	2	1 3	L	5	5	5	5	-20°	(-29°)	176°	(80°)	50°	(10°)	For use on vinyl	<b>Removable, bus signage</b>
V 400 FW	V-58	2	1 3	L	5	5	5	5	-20°	(-29°)	176°	(80°)	50°	(10°)	For use on vinyl	<b>General purpose removable</b>
OM 200 C	V-63	2	3 5	M-H	5	5	5	5	-40°	(-40°)	176°	(80°)	50°	(10°)		UV resistant; overlaminating
PM 200 C	V-66	4	4 6	M	5	5	5	6	-40°	(-40°)	302°	(150°)	50°	(10°)	Not for use on vinyl	Medium to high tack; general purpose
V 400 FW	V-68	2	1 3	L	5	5	5	5	-20°	(-29°)	176°	(80°)	50°	(10°)	For use on vinyl	<b>Removable shelf marking</b>
PLV 400 FW	A-69	1	1 1	M	1	3	2	3	-20°	(-29°)	176°	(80°)	50°	(10°)		<b>Removable, bus wrap</b>
PP 200 HC	A-81	2	2 3	H	4	2	5	3	-40°	(-40°)	176°	(80°)	50°	(10°)		General purpose, passes ice chest and low-temp pasteurization
PP 200 HC	V-81	2	2 4	M-H	4	4	5	3	-40°	(-40°)	176°	(80°)	50°	(10°)		General purpose, prime label
A 200 W	V-94	2	3 4	M	4	5	5	5	-40°	(-40°)	212°	(100°)	50°	(10°)	Not for use on vinyl	Permanent for acrylic films
PM 150 C	V-95	2	2 4	H	6	5	6	5	-40°	(-40°)	302°	(150°)	50°	(10°)	Not for use on vinyl	Clear, high temp.; autoclavable
V 400 FW	A-109	1-2	1 1	L-M	1	3	2	2	-40°	(-40°)	176°	(80°)	50°	(10°)		Cleanly removable for floor graphics
OM 100 C	V-122	4	3 4	L	4	3-4	5	4	-40°	(-40°)	302°	(150°)	50°	(10°)	Not for use on vinyl	Ultraclear for overlaminating
OM 200 C	L-122 <sup>†</sup>	4	3 5	L	5	4	5	4	-40°	(-40°)	302°	(150°)	50°	(10°)	Not for use on vinyl	Ultraclear for overlaminating
PM 200 C	V-126*	3	3 5	H	6	4	6	5	-40°	(-40°)	302°	(150°)	50°	(10°)		High temperature
PE 380 FWM	A-136	3	3-4 4	H	5	1	4	5	-40°	(-40°)	176°	(80°)	50°	(10°)		Aggressive, high-performance for full-squeeze tube

ADHESIVES COATED AT 1.0 MIL (25 MICRONS) THICKNESS; EXCEPTIONS INCLUDE V-26 AND V-94 COATED AT 1.5 MIL (38 MICRONS). CLEAR POLYESTER FILM, EXCEPTIONS INCLUDE: L-24S AND L-26 WERE TESTED ON 3.5 MIL (89 MICRONS) WHITE VINYL, A-81 AND V-81 WERE TESTED ON 2.0 MIL HARD CLEAR POLYPROPYLENE. SEE PAGE 5 FOR SPECIFIC TEST METHODS USED.

<sup>1</sup> Initial peel - 15 minute dwell time on stainless steel panel at room temperature

<sup>3</sup> (P) for polyester films

<sup>2</sup> Ultimate peel - 72 hour dwell time on stainless steel panel at room temperature

<sup>4</sup> (V) for vinyl films

<sup>†</sup> "L" adhesives denote UL-Recognized adhesives. "L" adhesives listed on this chart may not be UL-Recognized for listed temperature range and surface. "L" adhesives are included on this chart to compare performance values to our "V" adhesives only. Please reference our UL Guide for specific UL Recognition for these "L" adhesives. FLEXcon products are also listed under UL file numbers

MH10170 and MH16635(N). A variety of FLEXcon products have CSA acceptance, and/or CUL acceptance. Please contact your Business Team for more information.

<sup>A</sup> OM 200 C L-22 and K 200 Y Densil<sup>®</sup> are not UL-Recognized film/adhesive combinations.

<sup>\*</sup> Adhesive can be ordered as a laminating adhesive.

Tack	Peel	Shear	Chemical, Heat and Humidity Ratings
<b>1 Very Low</b> 0 up to 100 g/sq.cm.	<b>1 Very Low</b> 0 up to 14 oz/in (0-154 N/m)	<b>L = Low</b> <10 hrs	<b>1 Poor</b> More than 50% adhesion loss
<b>2 Low</b> 101 up to 400 g/sq.cm.	<b>2 Low</b> 15 up to 34 oz/in (165-374 N/m)	<b>M = Medium</b> >10 <100 hrs	<b>2 Fair</b> 20 to 50% adhesion loss
<b>3 Medium</b> 401 up to 550 g/sq.cm.	<b>3 Medium</b> 35 up to 54 oz/in (385-594 N/m)	<b>H = High</b> >100 hrs	<b>3 Good</b> 10 to 20% adhesion loss
<b>4 Medium High</b> 551 up to 700 g/sq.cm.	<b>4 Medium High</b> 55 up to 74 oz/in (605-814 N/m)		<b>4 Very Good</b> 5 to 10% adhesion loss
<b>5 High</b> 701 up to 800 g/sq.cm.	<b>5 High</b> 75 up to 94 oz/in (825-1034 N/m)		<b>5 Excellent</b> -5 to +5% adhesion change
<b>6 Very High</b> More than 801 g/sq.cm.	<b>6 Very High</b> More than 95 oz/in (1045 N/m)		<b>6 Superior</b> +5% adhesion gain
			<b>Chemical Resistance:</b> Overall average of Peel Performance retained after exposure to chemicals vs. 72 hrs. on Stainless Steel panel at room temperature.
			<b>Cleaning Solutions:</b> Isopropyl Alcohol • Gasoline • Toluene • Oil (SAE 10W-30) • Acetic Acid (5%) • Water
			<b>Humidity Resistance:</b> Overall average of Peel Performance retained after exposure to 100°F and 95% RH for 1 Day and 1 Week vs. 72 hrs. on Stainless Steel panel at room temperature.

# Adhesive Performance for Most Common Film/Adhesive Combinations

FILM/ADHESIVE COMBINATION		BASIC ADHESION PROPERTIES			ENVIRONMENTAL PERFORMANCE				TEMPERATURE RANGE ON STAINLESS STEEL			RECOMMENDATIONS	KEY FEATURES		
TYPE	CODE NO.	Tack	Peel	Shear	Resistance to:				Low	High	Min. App. Temp.				
					CHEMICAL	UV	HEAT	HUMIDITY						°F	(°C)
V 400 FW	V-156	5	3 5	L	5	5	5	5	-40°	(-40°)	176°	(80°)	32°	(0°)	Low temperature, high adhesion
V 400 FW	L-156†	5	3 5	L	5	5	5	5	-40°	(-40°)	176°	(80°)	32°	(0°)	Very aggressive, low temperature
OM 200 C	V-157	4	4 5	L	4	4	5	4	-40°	(-40°)	302°	(150°)	50°	(10°)	Ultraclear for overlaminating
OM 200 C	L-157†	4	4 5	L	4	4	5	4	-40°	(-40°)	302°	(150°)	50°	(10°)	Ultraclear for overlaminating
V 400 FW	V-176	5	5 6	L	5	5	5	5	-20°	(-29°)	176°	(80°)	32°	(0°)	Very aggressive, acid free
V 400 FW	V-224	4	4 5	L-M	3-4	3-4	5	3	-40°	(-40°)	176°	(80°)	50°	(10°)	General purpose
V 400 FW	L-224†	4	4 5	L-M	3-4	3-4	5	3	-40°	(-40°)	176°	(80°)	50°	(10°)	General purpose
PM 150 C	V-232	3	3 4	H	5	5	4	5	-40°	(-40°)	302°	(150°)	50°	(10°)	Pharmaceutical; autoclavable
V 240 RC	V-253X	3	3 5	M	3	2	5	3	-40°	(-40°)	176°	(80°)	50°	(10°)	Custom color, pigmented adhesive
V 400 FW	<b>V-302LP</b>	2	2 3	L	1	4	5	5	-20°	(-29°)	176°	(80°)	50°	(10°)	<b>Low adhesion, cleanly removable</b>
V 400 FW	<b>V-302ULP</b>	1	1 1	L	1	2	2	2	-20°	(-29°)	176°	(80°)	50°	(10°)	<b>Ultra low adhesion, premask</b>
PM 200 C	V-305	2	2 4-5	H	6	5	5	5	-40°	(-40°)	302°	(150°)	50°	(10°)	Membrane switch, high temperature, high performance
PM 200 C	L-305†	2	2 4-5	H	6	5	5	5	-40°	(-40°)	302°	(150°)	50°	(10°)	Membrane switch, high temperature, high performance
V 400 FW	<b>V-314</b>	1	1 1	L	1	3	1	1	-20°	(-29°)	176°	(80°)	50°	(10°)	<b>Ultra removable, acid free</b>
V 400 FW	<b>V-327</b>	1-2	1 1	L-M	1	3	2	2	-40°	(-40°)	176°	(80°)	50°	(10°)	<b>Low adhesion, removable</b>
V 400 FW	V-330	3	3 5	L	3	5	4	3	-40°	(-40°)	176°	(80°)	50°	(10°)	Reworkable for prime label; removable for shelf marking
V 400 FW	V-344*	5	3 5	L-M	5	5	5	5	-40°	(-40°)	176°	(80°)	50°	(10°)	General purpose; bonds well to low surface energy surfaces
V 400 FW	L-344†*	5	3 5	L-M	5	5	5	5	-40°	(-40°)	176°	(80°)	50°	(10°)	General purpose; bonds well to low surface energy surfaces
PE 350 FWM	V-344DL	4	3 4	L-M	5	3	5	5	-40°	(-40°)	176°	(80°)	32°	(0°)	Drum label, low temperature application
V 400 FW	V-378	6	4 6	L	4	5	5	5	-40°	(-40°)	176°	(80°)	32°	(0°)	Aggressive, high performance; bonds well to low surface energy surfaces
V 400 FW	L-378†	6	4 6	L	4	5	5	5	-40°	(-40°)	176°	(80°)	32°	(0°)	Aggressive, high performance; bonds well to low surface energy surfaces
PM 200 C	V-402*	2	3 4	H	6	5	5	5	-40°	(-40°)	302°	(150°)	50°	(10°)	High temperature, high performance
PM 200 C	L-402†*	2	3 4	H	6	5	5	5	-40°	(-40°)	302°	(150°)	50°	(10°)	High temperature, high performance
PM 200 C	V-417*	5	3 4	H	4	4	5	5	-40°	(-40°)	302°	(150°)	50°	(10°)	High temperature, high performance
V 400 FW	L-465†	2-3	3 4	M	3	4	4	3	-40°	(-40°)	176°	(80°)	50°	(10°)	General purpose
V 400 FW	V-465	2-3	3 4	M	3	4	4	3	-40°	(-40°)	176°	(80°)	50°	(10°)	General purpose
PM 200 C	V-606*	3	3-4 5-6	H	5	5	6	5	-40°	(-40°)	302°	(150°)	50°	(10°)	Aggressive, high performance
PM 200 C	L-606†*	3	3-4 5-6	H	5	5	6	5	-40°	(-40°)	302°	(150°)	50°	(10°)	Aggressive, high performance
DA 200 C	V-88	6	6 6	H	1	1	5	1	-20°	(-29°)	200°	(93°)	50°	(10°)	Not for use on vinyl High performance
PE 200 W	L-88†	6	6 6	H	5	1	5	4	-20°	(-29°)	176°	(80°)	50°	(10°)	Not for use on vinyl High performance, fire extinguisher
Destruct															
V 400 FW	V-98	5	3 5	M	5	1	4	4	-20°	(-29°)	176°	(80°)	50°	(10°)	General purpose
PE 380 FWM	V-367	6	4 5	L	5	1	4	4	-20°	(-29°)	176°	(80°)	50°	(10°)	Very aggressive
K 200 Y Densil® <sup>FA</sup>		1	3 4	H	5	6	6	5	-300°	(-185°)	500°	(260°)	50°	(10°)	Superior overall performance

ADHESIVES COATED AT 1.0 MIL (25 MICRONS) THICKNESS; EXCEPTIONS INCLUDE V-253X COATED AT 4.0 MIL (102 MICRONS), V-367 COATED AT 1.5 MIL (38 MICRONS), V-606 AND L-606 COATED AT 2.0 MIL (51 MICRONS).

<sup>1</sup> Initial peel - 15 minute dwell time on stainless steel panel at room temperature

<sup>2</sup> Ultimate peel - 72 hour dwell time on stainless steel panel at room temperature

† "L" adhesives denote UL Recognized adhesives. "L" adhesives listed on this chart may not be UL Recognized for listed temperature range and surface. "L" adhesives are included on this chart to compare performance values to our "V" adhesives only. Please reference our UL Guide for specific UL Recognition for these "L" adhesives. FLEXcon products are also listed under UL file numbers MH10170 and MH16635(N). A variety of FLEXcon products have CSA acceptance, and/or CUL acceptance. Please contact your Business Team for more information.

^ OM 100 C L-22 and K 200 Y Densil® are not UL-Recognized film/adhesive combinations.

• Adhesive can be ordered as a laminating adhesive.

## UV Resistance

### 1 Poor

Adhesive turns very dark brown and/or complete loss of adhesion

### 2 Fair

Adhesive turns brown, some adhesion loss/chalking and/or cracking of film

### 3 Good

Adhesive turns yellowish, some adhesion loss but no effect on film

### 4 Very Good

Slight discoloration, no adhesion loss

### 5 Excellent

Very slight discoloration

### 6 Superior

No change

1000 hours in QUV unit with 8 hour light, 4 hour humidity cycle and/or up to 1 year exposure in Florida.

Note: UV resistance of adhesive is also dependent on film. Service temperature limits are also dependent on film and application surface. Depending on film and surface it could be higher or lower.



## Let's Talk Solutions

Bring your challenges or next big idea to FLEXcon and we will work together to find a solution.

Call us at (508) 885-8200 or visit our Customers' Corner website at [www.FLEXcon.com](http://www.FLEXcon.com).

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