



Adhesive Technical Guide

October 2024



Adhesives

For nearly seven decades, Flexcon's leadership in adhesive technologies has revolutionized thousands of products across dozens of industries. From standard to custom, simple to complex, we take a collaborative approach to providing best-in-class products that benefit your business and end users alike. Whether your priorities are safety, style, durability, or recyclability, we have products to meet your standards and exceed your expectations.

Built for everyday reliability

We believe that everyday items should still be exceptional. Our comprehensive line of general-purpose adhesives is designed to provide a strong balance of properties for dependable daily use. This includes beverage labeling, branding graphics, overlaminates, UV protections, and more.

Engineered for high-performance

Our high-performance adhesives offer superior quality and resistance against the most demanding, mission-critical conditions from chemicals, temperature extremes, direct skin contact, abrasion, and more. From tamper-evident labels to aggressive permanent adhesives, our products will maintain a strong bond built to withstand degradation from chemical, temperature, abrasion, and more. We also provide removable solutions that meet extreme environmental and processing performance requirements.

Trusted for critical healthcare applications

Flexcon's healthcare adhesives are proven to deliver patient safety and comfort, every time. We offer a selection of medical adhesives for pharmaceutical and medical device labeling, wearables, diagnostics, and tapes. Our products meet applicable FDA standards and provide patient-friendly alternatives to reduce pain and allergic reactions.

Temporary when it needs to be

For impermanent applications, our products may not need to last a lifetime, but they're anything but expendable. From bus wraps to window perforated films, our temporary adhesive products allow for a smooth, weather-resistant seal for incredible looking results. When it's time for a change, our components peel off without leaving any residue behind.

Sustainable solutions to benefit the planet

We develop eco-friendly components to enhance the recyclability of products without sacrificing aesthetics or causing mechanical issues at recycling plants. Our solutions include options for recycling of both HDPE and PET containers.

Application Surface Energy



Low

- PVA
- Polystyrene
- EVA
- PE
- PP
- PVF, PVDF, PTFE
- Silicone



Medium

- Wood
- Nylon
- PMMA (Acrylic)
- PET
- PU Foam
- TPU
- PC
- PVC



High

- Copper
- Stainless Steel
- Aluminum
- Tin
- Ceramic
- Glass

Surface energy is the measure of excess energy at the surface of a material compared to its interior, influencing interactions like wetting and adhesion.


















































































































































































Wetting occurs when a liquid spreads out uniformly over a material's surface.

Adhesion is the ability of a material to bond and adhere to a surface through physical or chemical interactions, keeping the materials securely connected.

Higher surface energy materials, such as glass and metals, promote stronger adhesion as they allow for better contact between the liquid (adhesive) and the solid surface. These materials have more available energy at their surface, making it easier for liquids to spread (or "wet out") across the surface.

Low surface energy materials, such as polyethylene (PE) and polypropylene (PP), generally exhibit poor adhesion and tend to repel liquids, making it challenging for adhesives to spread and create a strong bond.

Adhesive Guide

Application Substrate Surface Energy:			Adhesive	Performance Attributes								Applications					
Low	Med	High		General Purpose	High Performance	Permanent	Removable	High Clarity	High Temp. Resistance (up to 302°F [150°C])	Chemical Resistance	Moisture Resistance	Skin Contact	UL Recognized	Labels	Graphics	Medical	Tapes
			A-109														
			A-136														
			A-208														
			A-361, L-361														
			H-502														
			H-506														
			H-520														
			H-526														
			H-566														
			L-157, V-157														
			V-01, L-01														
			V-127RE														
			V-130														
			V-133														
			V-156, L-156														
			V-22, L-22, L-44														
			V-224, L-224														
			V-23, L-23														
			V-232														
			V-232C														
			V-248														
			V-29, H-529, L-29, L-10														

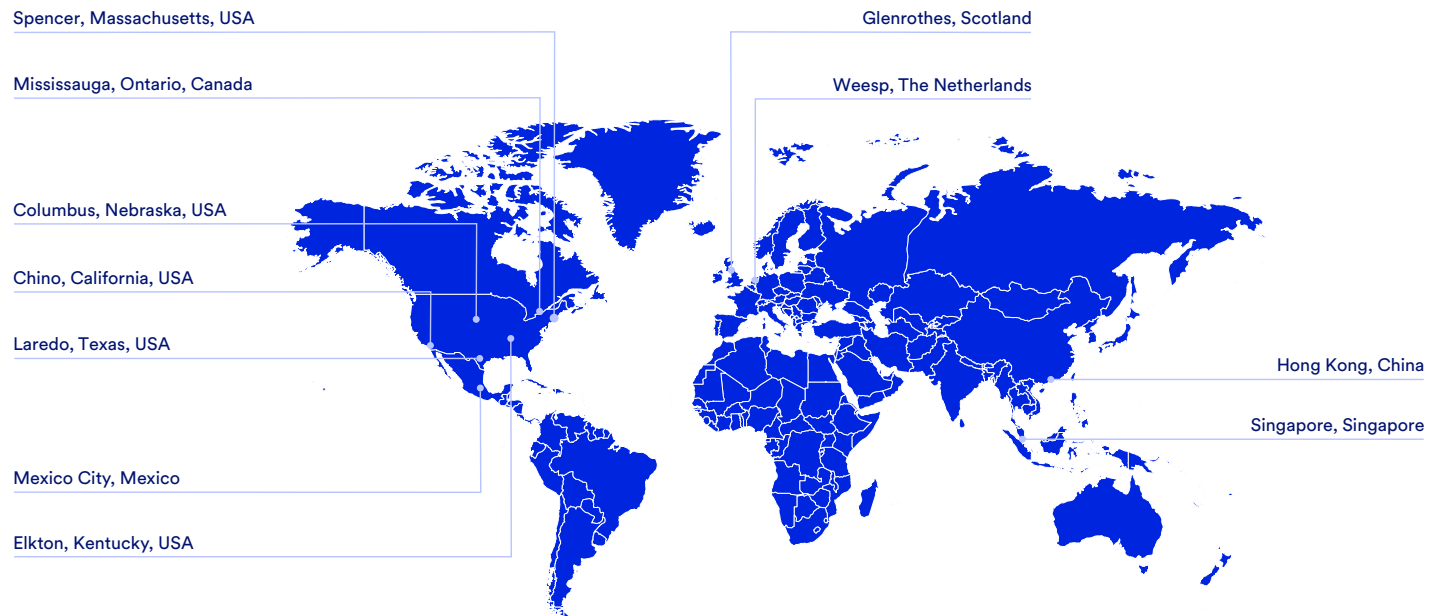
Adhesive Guide

Application Substrate Surface Energy:			Adhesive	Performance Attributes									Applications				
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	●		V-300, V-300X	●		●								●	●		
○	●	●	V-314	●			●	●								●	
○	●	●	V-32, A-32	●	●	●		●	●					●			
		●	V-323	●			●									●	
○	●	●	V-330	●			●									●	
○	●	●	V-344, L-344		●	●			●	●		●		●	●		●
○	●	●	V-344DL		●	●			●	●				●			
○	●	●	V-384	●			●							●	●		
○	●	●	V-449	●	●	●		●	●	●				●		●	
	●	●	V-465, L-465	●		●						●		●	●		
○	●	●	V-478		●	●			●					●	●		●
○	●	●	V-50	●			●								●		
	●	●	V-52RE		●	●								●			
○	●	●	V-58	●	●		●		●					●	●		
○	●	●	V-606, L-606	●	●	●				●		●		●			●
○	●	●	V-611	●			●							●			
	●		V-63	●		●								●	●		
○	●	●	V-778, H-778, L-778		●	●			●			●	●	●		●	●
○	●	●	V-81	●	●	●		●			●			●			
○	●	●	V-88, L-88		●	●				●		●		●			●
○	●	●	SA3000 Series		●	●			●					●			●
○	●	●	SA6000 Series		●	●			●					●			●

Supporting Businesses Globally

Flexcon Global is a preferred provider of innovative coatings, film laminations, and functional technologies. Flexcon is committed to understanding customer challenges and co-creating solutions that positively impact society and the environment. A family-owned business for nearly 70 years, Flexcon develops and manufactures quality products with precision and efficiency for markets such as healthcare,

sustainable packaging, transportation, consumer durables, electronics, industrial, retail & advertising and construction & energy with a goal of advancing bonds, innovation, and our world. Headquartered in Spencer, MA, USA, the company has operations and distribution throughout North America, Europe and Asia. For more information, visit Flexcon.com, follow Flexcon on LinkedIn, or call +1-508-885-8200.



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