

FLEXcon® SA9000D Adhesive Series

Product Description

Silicone adhesives can be ideal solutions for applications that require extremely aggressive permanent bonds. They are engineered to withstand difficult environments and stresses. Recommended applications include: Industrial assembly, transit manufacturing, vibration dampening, sterilization gauges, durable goods, gasketing and sealing.

FLEXcon's SA9000D adhesive is a low tack, high performance silicone adhesive.

Product	Adhesive Thickness	Color*
FLEXcon® SA9002D	2.0 mil	Clear
FLEXcon® SA9004D	4.0 mil	Pale Yellow

*Adhesive color varies from clear to pale yellow, depending on adhesive thickness. An increase in thickness lowers the clarity.

Performance Benefits

- Low tack, high-performance, permanent silicone adhesive.
- Superior adhesion to metals.
- Ideal for temperature ranges -300°F to 500°F (-185°C to 260°C).
- Short-term exposure temperature range up to 800°F (427°C) to 1000°F (538°C) (Less than 1 hour).
- Available as self-wound and double-liner transfer tapes and single- and double-coated constructions.

Certification Recognition

- ISO 9001:2008 Certified Manufacturer

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

Thickness (Mils [Microns])	Adhesive (+/- 10%) 1.9-2.1 (48-53) +/-0.2 (5)						ASTM D 3652	
Peel Average 90° angle 12"min		Average 15 min		Average 3 days RT		Average 3 days 160°F		ASTM D 3330 (Modified for dwell time) (All peels laminated to 2 mil. foil)
		Oz/in	(N/m)	Oz/in	(N/m)	Oz/in	(N/m)	
	Acrylic	-	-	57	(627)	-	-	
	Glass	-	-	65	(715)	-	-	
	Polypropylene	-	-	31	(341)	-	-	
Stainless Steel	76	(836)	57	(627)	38	(418)		
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)	
	180+			180+				
Tack (gm)	2.0 mil Clear Polyester			2.0 mil Aluminum Foil			Method A ASTM D 2979	
	1040			460				

Thickness (Mils [Microns])	Adhesive (+/- 10%) 3.9-4.1 (99-104) +/-0.2 (5)						ASTM D 3652	
Peel Average 90° angle 12"min		Average 15 min		Average 3 days RT		Average 3 days 160°F		ASTM D 3330 (Modified for dwell time) (All peels laminated to 2 mil. foil)
		Oz/in	(N/m)	Oz/in	(N/m)	Oz/in	(N/m)	
	Acrylic	-	-	59	(649)	30	(333)	
	Glass	-	-	58	(638)	-	-	
	Polypropylene	-	-	66	(726)	-	-	
Stainless Steel	56	(616)	60	(660)	66	(726)		
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)	
	180+			180+				
Tack (gm)	4.0 mil Clear Polyester			4.0 mil Aluminum Foil			Method A ASTM D 2979	
	760			800				

Expected Exterior Life	Dependant on life of substrate; adhesive is suitable for outdoor applications
Service Temperature Range	-300°F to 500°F (-185°C to 260°C)
Minimum Application Temperature	50°F (10°C)
Storage Stability	Six months stored at 70°F (21°C) and 50% RH

Product Technical Data: Humidity Resistance

Adhesion Retention	Adhesive on 200 PM Clear Film 2.0 mil clear polyester	90° angle 12"min 7 days + 24 hour recovery
	No visual change, 35% adhesion loss	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

Adhesion Retention	Solvent	Adhesive on 200 PM Clear Film 2.0 mil clear polyester	90° angle 12"min with 24 hour recovery All testing on SS panel at 100°F and 95% RH. 24 hour dwell time on SS panel before immersion.
	1 hour at RT in Gasoline (unleaded)	Edge penetration, 15% adhesion loss	
	1 hour at RT in MEK (Methyl Ethyl Ketone)	Edge penetration, 35% adhesion loss	
	72 hours at 120°F (49°C) in Oil (SAE-10W-30)	No visual change, 10% adhesion gain	
	72 hours at RT in Salt Water (6% by weight)	No visual change, 20% adhesion gain	
	100 hours at RT in Water	No visual change, 10% adhesion loss	

Release Liner Options

FLEXcon® SA9000D series adhesive is available in self-wound and double-liner transfer tapes and single- and double-coated constructions.

78K

78 lb. Semi-bleached white kraft release liner, release coated on one side for one side coating.

Master Width: 54"

200 Poly White-9

2.0 mil Hazy clear polyester, release liner coated on one side for roll to roll converting provides ultra smooth adhesive clarity and tear resistance. Ideal for applications requiring high speed dispensing, automotive assembly and uniform diecutting.

Master Width: 54"

78K C2S

78 lb. Semi-bleached white kraft release liner, release coated on two sides. Ideal for self wound transfer tapes.

Master Width: 54"

Application Techniques

When applying pressure-sensitive adhesives, it is necessary to provide pressure during lamination. Compared to acrylic and rubber base pressure-sensitive adhesives, silicone pressure sensitive adhesives generally take a longer time to form a good bond. Lower tack adhesives will require longer dwell time, higher pressure and/or higher temperature to achieve good bond. Heat can increase bond strength (generally this same increase is observed at room temperature over longer times). FLEXcon SA9000D is a dry, non-tacky adhesive. A mechanical assist or a primer may be required for some applications to achieve a bond.

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. Adhesive must be at room temperature during application if surface is below 50°F (10°C).

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.