

Medical Device Silicone Adhesives

Application and Product Selection Guide



Advancing healthcare through material innovations



Adhesives

Pressure sensitive adhesives (PSAs) and soft skin adhesives (SSAs) can be used for wearable monitoring devices, wound care products, medical device attachments, external prosthetic devices and specialty cosmetic applications.

Innovation Meets Expertise

You want to explore new directions and create the next generation of medical device technology. You have a powerful ally with Dow Corning. When we are part of your team, you're backed by our expertise and our culture of discovery and innovation, nurtured by six decades of proven performance. You'll find a depth of knowledge not just in silicone chemistry, but in the medical device industry and process technology.

	Benefits	Product Description	Typical Applications	Processing Methods
PSA				
Dow Corning® MG Series Pressure Sensitive Adhesives for Medical Devices	Biocompatibility (non-irritating and non-sensitizing) High adhesion and conformity to skin Adhesion for extended wear time High gas and moisture permeability Available in a range of tack options, solvent types and solid contents to help meet application needs and	One-part, polycondensed polydimethylsiloxane/silicate resin adhesives Volatile solvent-based silicone adhesives	Non-sensitizing adherence of medical devices/appliances (colostomy, ileostomy, surgical dressings/pads, external prosthetic devices and patient monitoring)	Uses conventional tape coating equipment • Transfer coating • Brushing process
	processing constraints	One-part, polycondensed polydimethylsiloxane/silicate resin adhesive Hot melt silicone adhesive		Can be applied using conventional hot melt coating equipment

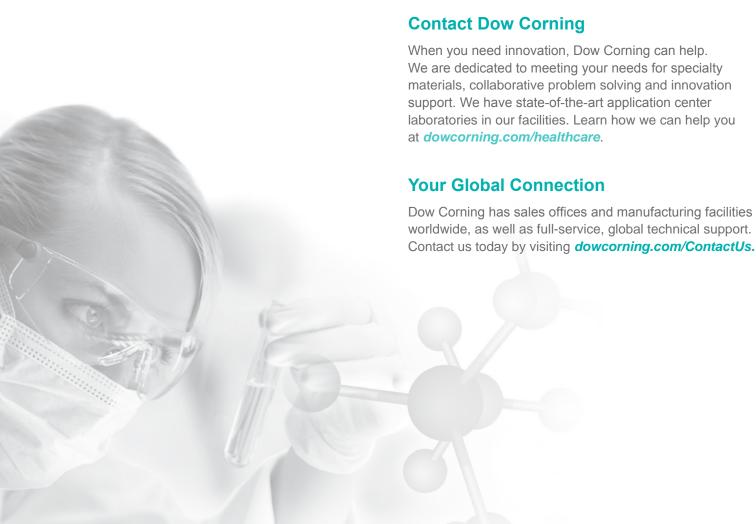
Elastomer				
Dow Corning® Soft Filling Elastomer	Transparent Low viscosity	Two-part (1:1 by weight), platinum-catalyzed, soft fillerless elastomer	Filling material for external foam prostheses and pressure cushions	
SSA				
Dow Corning® MG Series Soft Skin Adhesives	Transparent Low viscosity	Two-part (1:1 by weight), platinum-catalyzed, soft fillerless elastomeric adhesive	Non-sensitizing, gentle adhesion to skin (wound care and scar therapies)	Knife over roll coating process is recommended

[•] Specification writers: These values are not intended for use in preparing specifications. Please contact a Dow Corning representative prior to writing specifications on these products.
• Adhesion promoters are available. Please contact your Dow Corning representative for details.

Biocompatibility Testing

Pro	oducts	Cytotoxicity	Mutagenicity/ Genotoxicity	Skin Irritation	Skin Sensitization	Pyrogenicity (USP)	System Toxicity	FDA Drug Master File	Solvent Type	Solid Content (%)	Viscosity at 25 °C (cP)	Melf Viscosity at 185 °C (cP)	Nominal Tack Value	Peel Adhesion (g/cm)	Shear (kg)
	v Corning® MG-2401 Silicone Pressure sitive Adhesive¹	•		·					Hexa- methyldi- siloxane	32	90	Not Applicable	Medium	700	21
	v Corning® MG-2402 Silicone Pressure sitive Adhesive¹	•		•	•				Ethyl Acetate	64	2500	Not Applicable	Medium	700	21
	v Corning® MG-2502 Silicone Pressure sitive Adhesive¹	•		•	•				Ethyl Acetate	59	2000	Not Applicable	High	670	16
	v Corning® MG-2410 Silicone Pressure sitive Adhesive¹	•		•	•				Not Applicable	100	Not Applicable	30300	Very High	590	9
									Viscosity Part A (mPa·s)	Viscosity Part B (mPa·s)	Penetration After Cure (mm/10)	Adhesion (N/2.5cm)	Release (N/2.5cm)		
Dow	v Corning® 7-9600 Soft Filling Elastomer	•	·	٠	٠	٠	٠	·	470	470	245-275	0.1	Not Applicable		
Dow	v Corning® MG7-9700 Soft Skin Adhesive	•		•	•				500	320	90	0.6	0.11		
Dow	r Corning® MG7-9800 Soft Skin Adhesive	•		•	•			•	500	320	90	0.6	0.11		
Dow	r Corning® MG7-9850 Soft Skin Adhesive	A		A	A			•	2900	2900	135	1.1	0.03		
Dow	r Corning® MG7-9900 Soft Skin Adhesive	A		A	A			•	5100	5100	140	1.9	0.05		

Based on test results on adhesive solids
 Based on biocompatibility test data from analogous materials



Images: AV06728, AV24840, AV06729, AV24799, AV24841, AV19192

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30024738 Form No. 52-1225C-01 Insert C