

Dielectric Silicone Gel Potting Materials



Momentive Performance Materials provides leading-edge silicone technologies to help meet performance and productivity challenges in a wide range of automotive and electronic applications.

Momentive's dielectric silicone gel materials are extremely soft, lightly cross linked silicone polymers that provide good stress relief and self healing properties while maintaining dimensional stability and provide a tacky adhesion. These properties make the dielectric gels excellent candidates to consider for protection of fragile electronic components from moisture and the contaminants. Momentive offers a range of room temperature cure gels including one and two part products, and specialized grades that can help provide improved vibration dampening, very fast RT cure and UV activated cure.

Key Features

- Temperature resistance
- Low modulus, good dampening properties
- Low viscosity
- Tacky adhesion at RT
- High dielectric strength (> 18 kV/mm)

Typical Benefits

- Under the hood usage
- Thermal and mechanical stress protection
- Easily flow around components
- Prevent formation of thermally induced voids
- Reliability

Potential Applications

- Sensor potting
- ECU potting
- Power module potting
- Cable joints

Typical Physical Properties

(selected grades only; please contact us for material selection support)

Product	System (1)	Ratio (w/w)	Cure Time	Work life (@ RT)	Penetration (2) (1/10 mm)	Viscosity (Pa·s)	Feature
TSE3051	AC, 1K	n.a.	1 h @ 150°C	-	85	0.7	1 Part - Easy handling
TSE3070	AC, 2K	1:1	0.5 h @ 70°C	4 hr	65	0.8	Excellent vibration damping - high elongation
TSE3062	AC, 2K	1:1	0.5 h @ 70°C	1 hr	55	1	Excellent temperature stability
Silopren® Gel 6209FC	AC, 2K	1:1	1 h @ 100°C	0.5 hr	85	1	Excellent vibration damping
Silopren Gel 7212	AC, 2K	1:1	1 h @ 100°C	0.75 hr	120	1.5	Very soft gel
Silopren Gel 7206	AC, 2K	1:1	20 minutes at 23°C	10 minutes	70	0.15	Low viscosity, very fast RT cure

(1) AC = Addition Cure, UV = UV activated Addition Cure

(2) Penetration in 1/10 of a mm - measured with quarter cone

(3) CT = Cure Time, TFT = Tack Free Time

Typical properties are average data and are not to be used as or to develop specifications.

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Patent Status

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Product Safety, Handling and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

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