

OP1112 Thermal Cure Optical Bonding Gel

Description

OP1112 thermal cure optical bonding gel is a two-component, high elongation silicone gel. Excellent candidate of optical bonding applications. This product cures at 60 °C / 30 min. to a soft, tacky gel with the addition of a curing agent. The soft nature and cushioning effect of this product offers excellent protection to electronic assemblies from external humidity, mechanical shock and vibration.

Key Features and Typical Benefits

- Convenient 1:1 mix ratio by weight
- Heat curability at 60 °C / 30 minutes
- Soft, tacky and sticky gel
- Shock absorption for protection of delicate mechanical components from vibration
- Non-corrosive by-products

Typical Physical Properties

		OP1112 gel	
Uncured Properties		A	B
Appearance		Transparent	Transparent
Viscosity (23 °C) ⁽¹⁾	Pa.s	3.0	3.0
Mix Ratio by weight/volume		1:1	
Refractive Index		1.4	
Percent Transmittance (1mm thickness 400nm)	%	>99	
Percent Transmittance (1mm thickness 800nm)	%	>99	
Cured Properties (0.5hr at 60 °C)			
Appearance		Transparent gel	

Penetration		40
Specific Gravity	g/cm ³	0.97
Lap Shear Strength ⁽²⁾	MPa	0.30
Dielectric Constant (60Hz)		2.7
Dielectric Loss (60Hz)		0.002
Haze ⁽³⁾	%	0.04
YI (D1925) ⁽³⁾		0.13

(1) Brookfield Viscometer

(2) Glass (1mm) / LOCA (150um) / Glass (1mm)

(3) Glass (1mm) / LOCA (180um) / Glass (1mm)

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

Potential Applications

- Optical bonding for Automotive, Consumer Display

General Considerations For Use

- Materials such as water, sulfur, nitrogen compounds, organic metallic salts, phosphorus compounds, etc. contained in the surface of the substrate can inhibit curing. A sample patch should always be tested prior to proceeding in order to determine compatibility.
- All parts should be as clean and dry as possible prior to application.
- Eye protection and protective gloves should be worn at all times when working with this product.
- Maintain adequate ventilation in the work place at all times.
- Keep out of the reach of children.
- Store in a cool dry place out of direct sunlight.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

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.

Contact Information

For product prices, availability, or order placement, contact our customer service at Momentive.com/CustomerService/

For literature and technical assistance, visit our website at: www.momentive.com

DISCLAIMER:

THE MATERIALS, PRODUCTS AND SERVICES OF MOMENTIVE PERFORMANCE MATERIALS INC. AND ITS SUBSIDIARIES AND AFFILIATES (COLLECTIVELY “SUPPLIER”), ARE SOLD SUBJECT TO SUPPLIER’S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE.

EXCEPT AS PROVIDED IN SUPPLIER'S STANDARD CONDITIONS OF SALE, SUPPLIER AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of Supplier's materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Supplier's products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of Supplier's standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Supplier. No statement contained herein concerning a possible or suggested use of any material, product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Supplier covering such use or design, or as a recommendation for the use of such material, product, service or design in the infringement of any patent or other intellectual property right.

Momentive and the Momentive logo are trademarks of Momentive Performance Materials Inc.