



Liquid Optical Bonding for Display



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

Momentive is a pioneer in developing solutions for silicone optical bonding, with a portfolio of proven materials that are in wide use around the world. Momentive offers a wide range of off-the-shelf solutions to help deliver design flexibility and long-term reliability to components operating under harsh conditions.

Key Features

- High Transmittance
- Low cure shrinkage
- Good elasticity
- High stability, low modulus

Typical Benefits

- Optical clarity
- Stability/low modulus to help avoid Mura effect
- CTE mismatch relief
- Durable in harsh environments
- Outgas permeability for use on plastics
- Wide working temperature range

Potential Applications

- Displays for high ambient light environments
- Automotive, consumer, and industrial electronics
- Heavy-duty displays and touch-screens
- Direct view technologies
- Optical potting and other functional applications
- Display, screen, and touch sensor layers in structure

Optical Products and Typical Properties

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

| | | OP2131SD | OP1131D | OP2012S | OP1012 | SN3001 | SN1001 | OP1912 (translucent) | OP1912-B (black) |
|---------------------------|-------|------------|------------|-----------|-----------|--|--|-------------------------|---------------------|
| Cure-type | | UV | UV | Thermal | Thermal | Thermal (Snap cure) | Thermal (Snap cure) | Thermal | Thermal |
| Cure condition *1 | | 3000mJ/cm2 | 3000mJ/cm2 | 60Cx30min | 60Cx30min | Gel time 23Cx30min. Full adhesion. 2 days | Gel time 23Cx18min. Full adhesion. 2 days | 60Cx30min | 60Cx30min |
| Viscosity (mPa.s) | | 2300 | 2900 | 800 | 800 | 1000 | 1000 | 98800 | 98800 |
| Adhesion (MPa) *2 | | 0.3 | 0.4 | 0.4 | 0.2 | 0.6 | 0.6 | - | - |
| Hardness | | 7 (E) | Gel | 25(E) | Gel | Gel | Gel | Gel | Gel |
| Transmittance (%) *3 | 400nm | 99 | 99 | 99 | 99 | 99 | 99 | - | - |
| | 800nm | 99 | 99 | 99 | 99 | 99 | 99 | - | - |
| Color coordinate (D65) | L* | 99.89 | 99.7 | 99.83 | 99.96 | 99.88 | 99.88 | - | - |
| | a* | -0.14 | -0.14 | -0.18 | -0.16 | -0.15 | -0.15 | - | - |
| | b* | 0.08 | 0.12 | 0.02 | 0.01 | 0.05 | 0.03 | - | - |
| Haze (%) | | 0.2 | 0.2 | 0.05 | 0.01 | 0.05 | 0.05 | - | - |

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

Footnotes: *1 Metal halide/Oven, *2 GL-GL 150um thickness, *3 1mm thickness



260 Hudson River Road,
Waterford, NY 12188 USA

+1 800 295 2392

+1 614 986 2495

www.momentive.com

For more information and sampling inquiries, please visit momentive.com/CustomerService

Patent Status

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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.

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