

InvisiSil™ OP1221 (XE13-OP008)

Description

InvisiSil™ OP1221 (XE13-OP008) is a one-component, high elongation silicone gel designed for optical bonding applications. This product cures by UV to a soft, tacky gel with the addition of curing agent. The soft nature and cushioning effect of this product provides excellent protection of electronic assemblies from external humidity, mechanical shock and vibration.

Key features

- One Component
- UV curable
- Soft, tacky and sticky gel
- Absorbs shock and protects delicate mechanical components from vibration
- No reactive by-products; no concerns regarding corrosion

Application

Optical bonding

Typical property data

| Properties | OP1221_XE13-OP008 |
|----------------------------------|-------------------|
| Uncured Properties (23°C) | |
| Appearance | Transparent |
| Viscosity [Pas] @ 23°C | 7.5 |
| Mix Ratio | 1:1 |
| Specific Gravity [g/cm³] | 0.97 |
| Refractive Index | 1.41 |
| Transmittance @ 400nm [%] | 99 |
| Transmittance @ 800nm [%] | 99 |
| Cured properties | |
| Appearance | Transparent |
| Penetration [1/4 cone] – x10 | 35 |
| Lap Shear Strength [MPa] @ 0.3mm | 0.3 |
| Glass to Glass | |
| Youngs Modulus [MPa] | 0.06 |
| Dielectric Constant @ 60Hz | 2.8 |
| Volume Expansion [ppm] | 330 |
| Thermal Conductivity [W/mK] | 0.17 |
| Haze | <0.1 |
| Yellowness Index (D1925) | <0.3 |
| b* | <0.1 |

Optical properties (Haze~b*) specimen:
 Glass(1mm)/LOCA(180um)/Glass(1mm)

-Typical property data values should not be used as specification.

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.

Shelf life

- 6 months @ 23°C

Package option

- 1L bottle
- 18Kg Pail

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.

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