

Preliminary Product Information Electronics

Dow Corning[®] SE 9160

FEATURES

- 1-part UV cure with secondary moisture cure
- One part
- Bluish
- Reparable
- No added solvents

BENEFITS

- No mixing required
- Good through(in-depth) curing in high UV energy density
- Faster in-line processing through UV curing
- Adequate flow, fill or self-leveling after dispensing
- Very low shrinkage
- Good reliability against Cold and High temperature
- Good sealing against water and contaminants
- Re-parable for cost-reducing

One part, Bluish, Reparable, Hybrid (UV cure with secondary moisture cure) curable Sealing product for electronic assembly

APPLICATIONS

- Suitable for sealing air gaps or holes against water and contaminants for small-to-medium electronic devices such as mobile, tablet and display applications (Designed to seal air gaps or holes between display(LCD/OLED) panel and plastic cover frame for mobile)
- Reparable protection sealing materials such as gaskets, masking tapes
- General application: Mobile module assembly, Display module assembly

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Property	Unit	Result
UV cure condition at UV LED 365, 385, 405nm	mJ/cm ²	>4,000
Color	-	Bluish
Viscosity	cP	20,000
Skin Over Time at 25 °C	Minutes	30
Specific Gravity (Cured)	-	1.04
Durometer Shore A (JIS) (After UV- and 3 Day moisture- cure)	-	38

DESCRIPTION

Dow Corning® SE-9160 is the one-part silicone based on Hybrid curing (UV cure with secondary moisture cure), which provides water- & dust-proof, reliability and process-ability for electronic devices.

This product can be cured at lower UV energy density (UV V: >4,000mJ/cm²) and full curing is achievable by room temperature moisture curing to cure shadow(or in-depth) areas of electronic devices, which aren't exposed to UV light. Higher through(in-depth) curing is also achievable by higher UV energy (>10,000mJ/cm²) and can be adjusted, depending on the structure of each electronic device.

The product provides a controlled flow and reparability which satisfies optimized dispensing processes and cost-saving for electronic assembly. Faster UV curing also improves a productivity at manufacturing site since the product and components can be handled in short time right after UV curing.

Also, low cure shrinkage provides stable sealing and its elasticity provides vibration & impact resistance in assembly application.

For moisture curing part, it's generally cured at room temperature and in an environment of 30 to 80 percent relative humidity eliminating the need for curing ovens and the associated costs of energy and capital. Greater than 90 percent of full physical properties should be attained within 24 to 72 hours and varies according to product.

REPAIRABILITY

In the manufacture of electronic devices, salvage or rework of damaged or defective units is often required. Removal of *Dow Corning*®

SE9160 to allow necessary repairs can be easily done itself or assisted by using Micsol series and IPA. After work has been completed, the repaired area should be cleaned with forced air or a brush, dried, and patched with additional silicone product.

PACKAGING INFORMATION

This product is packaged in 50cc UV-block syringes. The product may be available in all packages, and some additional packages and package sizes may be available through communication with customers.

USABLE LIFE AND STORAGE

The product should be stored in freezing condition and in its original packaging with the cover tightly attached to avoid any contamination. Storage conditions and shelf life ("Use By" date) are indicated on the product label. Do not expose to UV light or sunlight to have stable shelf life. Material may polymerize upon prolonged exposure to ambient light.

USEFUL TEMPERATURE RANGES

For most uses, silicone adhesives should be operational over a temperature range of -45 to 200°C (-49 to 392°F) for long periods of time. However, at both the low- and high temperature ends of the spectrum, behavior of the materials and performance in particular applications can become more complex and require additional considerations. For low-temperature performance, thermal cycling to conditions such as -55°C (-67°F) may be possible, but performance should be verified for your parts or assemblies. Factors that may influence performance are configuration and stress sensitivity of components, cooling rates and hold times, and prior temperature history.

At the high-temperature end, the durability of the cured silicone elastomer is time and temperature dependent. As expected, the higher the temperature, the shorter the time the material will remain useable.

HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE ON THE DOW CORNING WEB SITE AT DOWCORNING.COM, OR FROM YOUR DOW CORNING REPRESENTATIVE, OR DISTRIBUTOR, OR BY CALLING YOUR GLOBAL DOW CORNING CONNECTION.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support Customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our web site, dowcorning.com or consult your local Dow Corning representative.

**LIMITED WARRANTY
INFORMATION – PLEASE
READ CAREFULLY**

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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