Technical Data Sheet

DOWSIL™ EA-8007CU UV Adhesive

One-part, translucent, UV single cure, curable coating product for display module assembly

Features & Benefits

- UV single cure
- One-part
- Translucent
- No added solvents
- No mixing required
- Good coating by jetting and dispensing process
- Quick UV cure by UV LED 365 or 405 or metal halide lamp
- Faster in-line processing through UV quick cure
- Adequate flow, fill or self-leveling after jetting or dispensing
- Available coating area check through UV tracer by UV LED 365 lamp after curing
- Good reliability against cold and high temperature

Applications

- Suitable for coating narrow area or holes against dust and contaminants for small-to-medium devices such as mobile, tablet, mobile phone, TV and display applications
- Protection coating materials such as polyimide film, metal and glass
- General application: mobile module assembly, LCD/OLED TV module assembly

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Test	Property	Unit	Result
	Color		Translucent
ASTM[1] D4287	Viscosity[2]	cP	350
ASTM D1475	Density (cured)	g/cm^3	1.15
	UV cure condition at UV LED 365 or 405 nm or metal halide lamp[3]	mJ/cm^2	> 350
ASTM D2240	Durometer Shore A[4] (After UV cure)		30

1. ASTM: American Society for Testing and Materials
2. HA spindle #52 at 200 rpm at 25°C
3. Reference adhesive thickness: 0.2 mm
4. Reference adhesive thickness: 6.0 mm

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Description

DOWSIL™ EA-8007CU UV adhesive is the one-part silicone based on UV single curing, which provides dust or contaminants -proof, reliability and process-ability for PCB and LCD/OLED system assemblies.

This product can be cured at lower UV energy density narrow areas of PCB and LCD/OLED system assemblies.

The product provides a controlled flow for PCB and LCD/OLED system 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.

This product can be checked after coating and curing through UV tracer by UV LED 365 lamp after curing.

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

Useful Temperature Ranges

For most uses, silicone adhesive 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 SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

The product should be stored in refrigerated storage(-25~5°C) 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.

Packaging Information

This product is packaged in 30cc EFD 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.

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 has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, dow.com or consult your local Dow representative.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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