



Technical Data Sheet

DOWSIL™ 817 Mirror Adhesive

High modulus neutral silicone sealant

Features & Benefits

- Non-corrosive, odorless, ready to use gun grade sealant which reacts with air moisture
- Excellent unprimed adhesion on most glasses, metals and mirror coatings
- Outstanding resistance to heat and humidity
- Resistant to ozone, ultra-violet radiation and temperature extremes

Applications

- DOWSIL™ 817 Mirror Adhesive is a one-part silicone sealant for internal fixation of mirrors, coated glass or metal panels onto various substrates and for bonding of glass and back plate in solar thermal panels

Typical Properties

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

Test ¹	Property	Unit	Result
	Cure system		Neutral
	Application temperature	°C °F	+5 to +40 +41 to +104
	Service temperature range	°C °F	-50 to +150 -58 to +302
	Working time	minutes	29
CTM97B	Specific gravity	g/ml	1.43
CTM062	Slump	mm	< 3
	12*12*50 mm size T.A. joint (ISO² 8339)		
CTM99E	Hardness (Shore A)		38
	Young modulus	MPa	1.2

1. CTM: Corporate Test Method, copies of CTMs are available on request.
2. ISO: International Standardization Organization

How to Use

Surface Preparation

Ensure that surfaces to be sealed are clean, dry, sound and free from grease, dust and other contaminants which could impair adhesion. Surfaces can be cleaned and degreased by wiping with a suitable solvent such as DOWSIL™ R-40 Universal Cleaner on a clean oil and lint-free cloth before application of sealant. Check to ensure that the mirror has been evenly coated, is protected by lacquer and is free of scratches.

Note: When using any solvent, always provide adequate ventilation. Avoid heat, sparks and open flames. Use solvent resistant gloves. Observe and follow all precautions listed on solvent container label.

Priming

For specific advice, please refer to our Primers' Guide.

Sealant Application

The sealant is ready to use. Apply 10 mm wide strips vertically on the back of the mirror in 100 mm intervals. Then press the mirror onto the surface, preserving a constant bead thickness of 2 mm for optimum cure and mechanical grab. Support the mirror for a minimum of 24 hours using adhesive tapes. This will ensure good contact and a minimum of displacement. Air should be allowed to circulate freely around the edges of the mirror thereby allowing the sealant to cure.

Clean-up

Excess sealant may be cleaned off tools and non-porous surfaces whilst in an uncured state using DOWSIL™ R-40 Universal Cleaner. If sealant is misapplied to porous substrates, it should be left until just cured, and then removed by peeling, cutting or other mechanical means. Care should be taken not to damage plastic or coated surfaces.

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

When stored in cool, dry conditions below 30°C (86°F) in the original unopened containers, DOWSIL™ 817 Mirror Adhesive has a usable life of 12 months from the date of production.

Packaging Information

DOWSIL™ 817 Mirror Adhesive is supplied in 310 ml cartridges packed in boxes of 12.

Limitations

Do not use DOWSIL™ 817 Mirror Adhesive on bituminous substrates, substrates based on natural rubber, chloroprene or EPDM or on building materials which might bleed oils, plasticizers or solvents. Do not use DOWSIL™ 817 Mirror Adhesive in a totally confined space because the sealant requires atmospheric moisture to cure. DOWSIL™ 817 Mirror Adhesive is not recommended for use in submerged applications or in applications where physical abuse of abrasion is likely to occur.

Limitations (Cont.)

When used with safety mirrors (single pane mirrors laminated with a plastic film at the back to prevent shattering of the glass when broken), first check adherence of DOWSIL™ 817 Mirror Adhesive on the plastic film.

This product is not suitable for areas where food contact is likely.

DOWSIL™ 817 Mirror Adhesive is not recommended for structural glazing or insulated glazing applications.

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.

dow.com

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