



Technical Data Sheet

DOWSIL™ 786+ Silicone Sealant

Medium/high modulus acetoxysilicone sealant

Features & Benefits

Cured sealant is:

- Fungus and mildew resistant
- Bacteriostatic
- Permanently flexible without shrinking, cracking, or drying out
- Retains original design properties even after years of exposure
- Compliant with FDA Regulation No. 21 CFR 177.2600

Applications

- DOWSIL™ 786+ Silicone Sealant is designed to seal nonporous surfaces around showers, tubs, sinks and plumbing fixtures where conditions of high humidity and temperature extremes exist. Suitable for use in areas where food contact is likely.
- Typical applications include:
 - Sealing around shower-tub enclosures, tubs, sinks, urinals and whirlpools
 - Sealing around bathroom fixtures
 - Sealing refrigeration units, and cold rooms
 - Waterproofing rimless sinks
 - Ceramic tile grouting

Typical Properties

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

Test	Property	Unit	Result
	Cure system		Acetoxysilicone
	Application temperature	°C	+5 to +40
		°F	+41 to +104
CTM ¹ 97B	Specific gravity		1.01
CTM 364C	Extrusion rate	g/minute	210
CTM 98B	Skin-over time (23°C or 73°F, 50% R.H.)	minutes	15
CTM 663A	Cure rate (23°C or 73°F, 50% R.H.)		
	1 day	mm	3
	3 days	mm	5

1. CTM: Corporate Test Method, copies of CTMs are available on request.

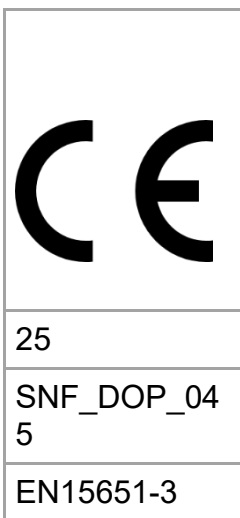
Typical Properties (Cont.)

Test	Property	Unit	Result
2 mm thickness S2 dumb-bells (ISO² 37)			
CTM 137A	E-Modulus 100%	MPa	0.31
CTM 137A	Tensile strength	MPa	1.7
CTM 137A	Elongation at break	%	600
CTM 99E	Hardness (Shore A)		19
ISO ² 9047	Joint movement capability	%	20

2. ISO: International Standardization Organization.

Technical Specifications and Standards

- DOWSIL[™] 786+ Silicone Sealant conforms to ISO 11600-F-20LM
- Non-sensitive to bacteria according to ISO 22196:2007 for Methicillin Resistant Staphylococcus aureus, Escherichia Coli and Salmonella enteritidis.
- Non-sensitive to bacteria according to NF EN ISO 846 – Method C for Pseudomonas aeruginosa.
- Non-sensitive to mould according to NF EN ISO 846 – Method A and B for Aspergillus niger, Penicillium pinophilum, Paecilomyces variotii, Trichoderma virens, Chaetomium globosum.



How to Use

Surface Preparation

Ensure that surfaces to be sealed are clean, dry, sound and grease-free. Clean non-porous surfaces with DOWSIL[™] R-40 Universal Cleaner or methylated spirits, and dry thoroughly with a clean, oil and lint-free cloth before application of sealant.

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.

How to Use (Cont.)

Masking

Areas adjacent to the joints should be masked with tape to prevent contamination of the substrates and to ensure a neat sealant line. Masking tape should be removed immediately after tooling.

Priming

No primer is required on most glazed surfaces, including vitreous enamel, ceramics, porcelain, glazed tiles, etc. For acrylic baths, it is recommended that an adhesion test is carried out. Adhesion to plastic and metal surfaces can be improved by using a Dow primer.

Back-up Materials

When back-up material is required, a closed cell polyethylene backer rod is recommended. Low tack polyethylene tape should be used in joints too shallow to allow the use of a backer rod. Back-up materials provide back pressure and prevent three-sided adhesion that limits sealant movement capability.

Finishing

The joint should be tooled within 5 minutes of application to ensure good contact between the sealant and the substrate. Tooling of the sealant also gives a smooth, professional finish.

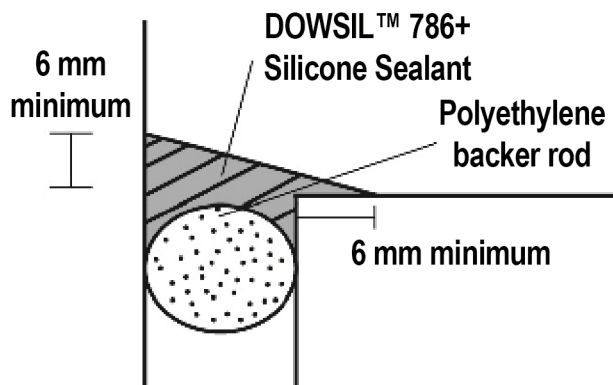
Clean-up

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

Joint Design

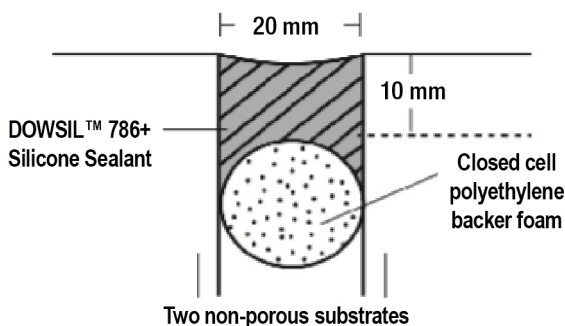
The sealant joint width should be designed to accommodate the movement capability of the sealant. When designing joints using with DOWSIL™ 786+ Silicone Sealant, the minimum width should be 6 mm. For joints between 6–12 mm wide, a seal depth of 6 mm is required. For joints above 12 mm wide, a width to depth ratio of 2:1 should be used. In situations where fillet joints are needed, a minimum of 6 mm sealant bite to each substrate is recommended.

Figure 1: Fillet Joint



How to Use (Cont.) Joint Design (Cont.)

Figure 2: Deep Joint



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™ 786+ Silicone Sealant has a usable life of 27 months from the date of production.

Packaging Information

DOWSIL™ 786+ Silicone Sealant is supplied in 310 ml cartridges packed in boxes of 12.

Limitations

DOWSIL™ 786+ Silicone Sealant is not recommended for use in applications involving:

- Structural silicone glazing
- Floor joints where physical abuse or abrasion is likely to be encountered
- Prolonged water immersion
- Cementous surfaces, such as masonry
- Building materials that might bleed oils or solvents – materials such as impregnated wood, partially vulcanized rubber gaskets or tapes or adhesives
- Totally confined spaces, because the sealant requires atmospheric moisture for cure
- Surfaces sensitive to corrosion by acetic acid vapors (a byproduct of sealant cure)
- A surface that is intended to be painted

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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