



Technical Data Sheet

DOWSIL™ 798 Cold and Cleanroom Silicone Sealant

FEATURES

- Neutral alkoxy cure system
- 100% silicone polymer
- Mildew resistant
- Bacteriostatic sealant
- Low modulus, high elasticity
- Low odor
- Conforms to ISO 11600-F&G-25LM
- Resistant to ozone, ultra-violet radiation and temperature extremes

Low modulus neutral silicone sealant

APPLICATIONS

- DOWSIL™ 798 Cold and Cleanroom Silicone Sealant is specifically formulated for sealing areas in refrigeration units and coldrooms. It is a one-part neutral curing silicone sealant, suitable for use in either interior or exterior applications where joints are susceptible to mildew. It is a bacteriostatic sealant, better protected against the bacterial growth. DOWSIL 798 Silicone Sealant offers good adhesion to most porous and non-porous surfaces including masonry, tiles, aluminum, PVC-U, polyacrylate, polycarbonate, glass and glazed surfaces.

TYPICAL PROPERTIES

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

Test method*	Property	Unit	Value
	Cure system		Neutral
	Application temperature	°C	+5 to +40
		°F	+41 to +104
CTM97B	Specific gravity	g/ml	1.51
CTM364C	Extrusion rate	g/minute	200
CTM98B	Skin-over time (23°C or 73°F, 50% R.H.)	minutes	20
CTM95A	Tack-free time (23°C or 73°F, 50% R.H.)	minutes	30
CTM663A	Cure rate (23°C or 73°F, 50% R.H.)		
	1 day	mm	2.0
	3 days	mm	4.0
	2mm thickness S2 dumb-bells (ISO 37)		
CTM137A	E-Modulus 100%	MPa	0.45
CTM137A	Tensile strength	MPa	1.9
CTM137A	Elongation at break	%	700
	12x12x50mm size T.A. joint (ISO 8339/DIN2-8339)		
CTM677	E-Modulus 100%	MPa	0.35
CTM677	Tensile strength	MPa	0.75
CTM677	Elongation at break	%	380
CTM99E	Hardness (Shore A)		29
	Elastic recovery	%	>90
ISO 9047	Joint movement capability		25

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

DIN: Deutsche Industrie Norm.

ISO: International Standardisation Organisation.

TECHNICAL SPECIFICATIONS AND STANDARDS

Conforms to SNJF Category 1,

- ISO 11600-F&G-25LM.
Bacteriostatic performance has been tested to ISO 22196:2007 for MRSA, E.Coli and Salmonella and to ISO 846 for P.Aeruginosa.

HOW TO USE

Surface preparation

Ensure that surfaces to be sealed are clean, dry, sound and free from frost, release agents, old sealants and other contaminants which could impair adhesion. All non-porous surfaces should 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. Porous surfaces such as concrete, brickwork, and mortar must be mechanically cleaned using a steel brush, sanding disc or other mechanical means.

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.

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

For specific advice, please refer to our Primer Guide or contact one of our regional service centers for technical assistance.

Back-up materials

When back-up material is required, closed cell polyethylene backer rod is recommended. Low tack polyethylene tape should be used in joints too shallow to allow the use of 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 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.

Joint design

The sealant joint width should be designed to accommodate the movement capability of the sealant. When designing joints using DOWSIL 798 Silicone Sealant, the minimum width should be 6mm. 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 6mm sealant bite to each substrate is recommended. For joint dimensions greater than 25 mm, please contact one of the regional service centers for technical assistance.

Figure 1: Deep joint.

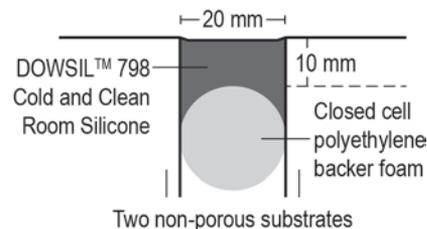


Figure 2: Shallow joint.

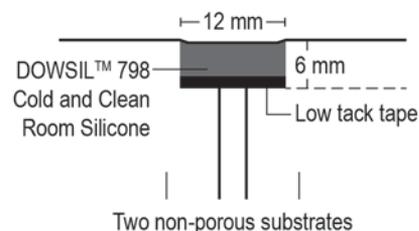
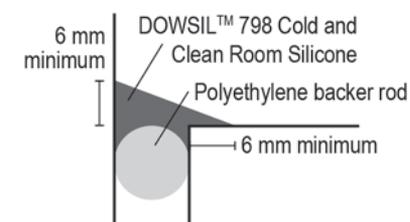


Figure 3: Fillet joint.



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 WWW.CONSUMER.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 798 Silicone Sealant has a usable life of 12 months from the date of production.

PACKAGING INFORMATION

DOWSIL 798 Silicone Sealant is supplied in 310 ml cartridges, packed in boxes of 12.

LIMITATIONS

Do not use DOWSIL 798 Silicone Sealant on bituminous substrates, substrates based on natural rubber, chloroprene or EPDM or on building materials and flexible plastics which might bleed oils, plasticizers or solvents. Do not use DOWSIL 798 Silicone Sealant in a totally confined space because the sealant requires atmospheric moisture to cure.

DOWSIL 798 Silicone Sealant is not recommended for use on submerged joints or in joints where physical abuse or abrasion is likely to occur. Bleeding can occur on porous substrates such as concrete, marble, granite or other natural stones. On sensitive substrates, specific testing should be carried out. DOWSIL 798 Silicone Sealant 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, www.consumer.dow.com or consult your local Dow 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.

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