CV2-2289-1

Controlled volatility potting and encapsulating silicone elastomer

DESCRIPTION

- Two-part, white silicone system
- Offers medium strength, low modulus, good physical properties and a broad operating temperature range
- 1:1 Mix Ratio (Part A:B)

Meets or exceeds the ASTM E 595 low outgas specifications outlined in NASA SP-R-0022A and European Space Agency PSS-014-702, with a TML of ≤1% and CVCM of ≤0.1%

APPLICATION

- To provide protection of electric components and assemblies against shock, vibration, moisture, dust, chemicals and other environmental hazards
- Ideal for adhesive applications where a large surface must be covered
- For applications requiring minimal outgassing

PROPERTIES

Typical Properties	Average Result	Standard	NT-TM
Uncured:			
Appearance, Part A*	White	ASTM D2090	002
Appearance, Part B*	Translucent	ASTM D2090	002
Viscosity, Part A*	14,000 cP (14,000 mPas)	ASTM D1084, D2196	001
Viscosity, Part B*	10,500 cP (10,500 mPas)	ASTM D1084, D2196	001
Tack-Free Time*	20 hours	ASTM C679	005
Cured: 4 hours at 65°C (149°F)			
Durometer, Type A*	30	ASTM D2240	006
Tensile Strength*	450 psi (3.1 MPa)	ASTM D412	007
Elongation*	250%	ASTM D412	007
Lap Shear Strength (primed w/ CF1-135)*	300 psi (2.1 MPa)	ASTM D1002	010
Collected Volatile Condensable Material (CVCM)*	0.07%	ASTM E595	072
Total Mass Loss (TML)*	0.31%	ASTM E595	072

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Typical Properties	Average Result	Standard	NT-TM
After High Temperature Exposure: 7 days at 240°C (464°F)			
Tensile Strength	130 psi (0.9 MPa)	ASTM D412	007
Elongation	45%	ASTM D412	007
Young's Modulus	350 psi (2.4 MPa)	-	-
Lap Shear Strength (primed w/ SP-270)	45 psi (0.3 MPa)	ASTM D1002	010
10 cycles of 5 minutes at 300°C (572°F)			
Tensile Strength	550 psi (3.8 MPa)	ASTM D412	007
Elongation	230%	ASTM D412	007
Young's Modulus	350 psi (2.4 MPa)	-	-
Lap Shear Strength (primed w/ SP-270)	400 psi (2.8 MPa)	ASTM D1002	010

*Properties tested on a lot-to-lot basis. Do not use the properties shown in this technical profile as a basis for preparing specifications Please contact NuSil Technology for assistance and recommendations in establishing particular specifications.

INSTRUCTIONS FOR USE

Mixing

Mix Part A and B in a 1:1 mix ratio by weight. CV2-2289-1 is ideal for Static mix and dispense application.

Vacuum Deaeration

Remove air entrapped during mixing by common vacuum deaeration procedure, observing all applicable safety precautions. Slowly apply full vacuum to a container rated for use and at least four times the volume of the material being deaerated. Hold vacuum until bulk deaeration is complete.

Inhibition Concerns

Cures in contact with most materials common to electronic assembles. Exceptions include butyl and chlorinated rubbers, some RTV silicones and unreacted residues of some curing agents. Units being encapsulated or potted should be clean and free of surface contaminates. Containers and dispensers being used should also be clean and dry. Cure inhibition can usually be prevented by washing all containers with solvent or volatizing the contaminant by heating.

Note: Some bonding applications may require the use of a primer. NuSil Technology CF1-135 silicone primer is recommended.

Adjustable Cure Schedule

Product cures at a wide range of cure times and temperatures to accommodate different production needs. Contact NuSil Technology for details.

Packaging

50 ml SxS Kit
50 Gram Kit
200 Gram Kit
500 Gram Kit

Warranty

12 Months

OPERATING TEMPERATURE

The operating temperature range of a silicone in any application is dependent on many variables, including but not limited to: temperature, time of exposure, type of atmosphere, exposure of the material's surface to the atmosphere, and mechanical stress. In addition, a material's physical properties will vary at both the high and low end of the operating temperature range. Silicone typically remains flexible at extremely low temperatures and has been known to perform at -50°C (-58°F) as well as resist breakdown at elevated temperatures up to 250°C (482°F). The user is responsible to verify performance of a material in a specific application.

ROHS AND REACH COMPLIANCE

Please contact NuSil Technology's Regulatory Compliance department with any questions or for further assistance

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SPECIFICATIONS

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WARRANTY INFORMATION

The warranty period provided by NuSil Technology LLC (hereinafter "NuSil Technology") is 12 months from the date of shipment when stored below 40°C in original unopened containers. Unless NuSil Technology provides a specific written warranty of fitness for a particular use, NuSil Technology's sole warranty is that the product will meet NuSil Technology's then current specification. NuSil Technology specifically disclaims all other expressed or implied warranties, including, but not limited to, warranties of merchantability and fitness for use. The exclusive remedy and NuSil Technology's sole liability for breach of warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. NuSil Technology expressly disclaims any liability for incidental or consequential damages.

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NuSil Technology has tested this material only to determine if the product meets the applicable specifications. (Please contact NuSil Technology for assistance and recommendations when establishing specifications.) When considering the use of NuSil Technology products in a particular application, review the latest Material Safety Data Sheet and contact NuSil Technology with any questions about product safety information.

Do not use any chemical in a food, drug, cosmetic, or medical application or process until having determined the safety and legality of the use. The user is responsible to meet the requirements of the U.S. Food and Drug Administration (FDA) and any other regulatory agencies. Before handling any other materials mentioned in the text, the user is advised to obtain available product safety information and take the necessary steps to ensure safety of use.

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