

Technical Data Sheet Silastomer[®] 333

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Page 1 of 2

Product Description

Hernon[®] Silastomer[®] 333 is a high performance, single component, ready to use adhesive / sealant. It has a paste-like consistency, which cures to a tough, resilient and durable silicone rubber when exposed to moisture in the air. Since it will not flow of its own weight, **Silastomer[®] 333** can be applied to vertical, horizontal and overhead joints without sagging or running off. It will adhere to clean metals, glass, most types of wood, silicone resin, vulcanized silicone rubber, natural and synthetic fiber, ceramic, many plastics and painted surfaces.

Silastomer[®] 333 provides excellent resistance to moisture, weathering, vibration, ozone and extreme temperatures. It can be applied in sub-zero weather with no loss in performance. Fully cured **Silastomer[®] 333** can be used for extended periods at temperatures up to 450°F (232°C), and for shorter periods, as high as 500°F (260°C). Tests have shown that even after two months at 450°F (232°C) or up to one week at 500°F (260°C), the sealant remains rubbery.

Product Benefits

- One component – no mixing
- Room temperature cure
- Non-sagging for use on horizontal, vertical or overhead surfaces
- Excellent high and low temperature resistance
- Excellent weatherability
- Versatile electrical insulation
- Cured rubber is non-toxic
- Good solvent resistance

Typical Properties (Uncured)

Property	Value
Base	Polysiloxane
Color	Clear
Viscosity	Thixotropic Paste
Specific Gravity	1.35
Extrusion Rate, 0.125 in. Orifice, 90 psi air pressure	350 g/min.
Flow Rate, sag or slump on 0.125 by 4 in. bead	Nil
Flash Point	See MSDS

Typical Properties (Cured)

Physical Properties

Property	Value
Coefficient of thermal expansion, in/in°C	9.3 × 10 ⁻⁴
Coefficient of thermal conductivity, W/(m·K)	0.11
Brittle Point, °F (°C)	-100 (-73)
Gap Cure, in. (mm)	0.25 (6)
Hardness, Shore A	30
Elongation, %	600
Tack Free Time at 77°F, minutes	30
Full Cure at 77°F, 0.25 in. bead, hours	24

Electrical Properties

Property	Value
Dielectric Strength, V/mil ASTM D149	550
Dielectric Constant @ 0.10 kHz ASTM D150	2.8 2.8 2.8
Dissipation Factor @ 0.10 kHz ASTM D150	0.015 0.015 0.015
Volume Resistivity, Ω·cm ASTM D257	1.5 × 10 ¹⁵

Typical Environmental Resistance

Silastomer[®] 333 exhibits excellent performance in severe environments such as harsh chemicals and extreme temperatures. The following changes in physical properties have been recorded after four years exposure to normal atmospheric environmental conditions:

	% Change
Durometer Hardness (Shore A)	+7%
Tensile Strength	-6%
Elongation	-7%

Silastomer[®] 333 exhibits good resistance to phosphoric acid up to a 50% concentration at 380°F (193°C) for one week, and to hydrochloric acid up to 20% concentration at 140°F (60°C) for one week.

As a cured silicone rubber, **Silastomer[®]** exhibits high permeability to most gases.

FDA Status

When fully cured and washed, **Silastomer[®] 333** meets the requirements of FDA Regulation No. 21 CFR 177.2600 subject to end use compliance with any applicable total extractives limitations.

General Information

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

Directions For Use

- For best performance bond surfaces should be clean and free from grease.
- Moisture curing begins immediately after the product is exposed to the atmosphere, therefore parts to be assembled should be mated within a few minutes after the product is dispensed.
- Excess material can be easily wiped away with non-polar solvents.

Storage

Silastomer® 333 should be stored in a cool, dry location in unopened containers at a temperature between 46°F to 82°F (8°C to 28°C) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused material, do not return any material to its original container.

Dispensing Equipment

Hernon® offers a complete line of semi and fully automated dispensing equipment. Contact **Hernon® Sales** for additional information.

These suggestions and data are based on information we believe to be reliable and accurate, but no guarantee of their accuracy is made. HERNON MANUFACTURING, INC. shall not be liable for any damage, loss or injury, direct or consequential arising out of the use or the inability to use the product. In every case, we urge and recommend that purchasers, before using any product in full scale production, make their own tests to determine whether the product is of satisfactory quality and suitability for their operations, and the user assumes all risk and liability whatsoever, in connection therewith. Hernon's Quality Management System for the design and manufacture of high performance adhesives and sealants is registered to the ISO9001:2000 Quality Standard.