

R-2186-2

General purpose, black silicone elastomer

DESCRIPTION

- Two-part, black, non-corrosive, pourable silicone system
- 10:1 Mix Ratio (Part A:B)
- Cures at room temperature or rapidly with heat
- High tear strength and good physical properties

APPLICATION

- To provide protection against shock, vibration, moisture, ozone, dust, chemicals and other environmental hazards
- For encapsulating electronic components and assemblies
- Ideal for molding or use in O-rings, potting connectors, cable harness breakouts, molded high voltage terminals, seals and gaskets due to its high physical strength
- For applications requiring an operating temperature range of -65 to 240°C (-85 to 465°F)

PROPERTIES

Typical Properties	Average Result	Metric Conv.	Standard	NT-TM
Uncured:				
Appearance	Black Part A / Translucent Part B	-	ASTM D2090	002
Viscosity, Part A	85,000 cP	85,000 mPas	ASTM D1084, D2196	001
Work Time	3 hours	-	-	008
Cured: 15 min at 150°C (302°F)				
Specific Gravity	1.15	-	ASTM D792	003
Durometer, Type A	35	-	ASTM D2240	006
Tensile Strength	1050 psi	7.2 MPa	ASTM D412, D882	007
Elongation	450%	-	ASTM D412, D882	007
Tear Strength	100 ppi	17.6 kN/m	ASTM D624	009
Dielectric Strength	500 volts/mil	19.7 kV/mm	ASTM D149	-
Volume Resistivity	1 x 10 ⁵	-	ASTM D257	040

The test data shown for this material is the average value for typical properties. All of these properties may not be tested on a lot to lot basis and cannot be used to draft specifications. Please [contact](#) us for assistance and recommendations in establishing limits for product specifications.

ADVANCED TECHNOLOGIES

INSTRUCTIONS FOR USE

Mixing

Mix in a 10:1 ratio Part A to Part B by weight. Take care to minimize air entrapment during mixing.

Recommended mixing equipment: <https://synergymixers.com/>

Vacuum Deaeration

Remove air entrapped during mixing by common vacuum deaeration procedure, observing all applicable safety precautions. Slowly apply vacuum, up to 28 inches Hg, to a container rated for use and of volume at least four times that of material being deaerated. Hold vacuum until presence of air is no longer evident.



DASD™ Vacuum Mixers

The DASD™ *Dual Asymmetric Servo Drive Mixers* is the most advanced mixing technology available today, fully capable of mixing a variety of materials from thick to thin in any combination quickly and repeatably.

Contact our mixing gurus today:
www.synergymixers.com

 NO Bubbles  NO Blades  NO Cleanup

Substrate Considerations

Cures in contact with most materials common to electronic assemblies. 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 contaminants. Containers and dispensers being used should also be clean and dry. Cure inhibition can usually be prevented by washing all containers with clean solvent or volatilizing the contaminants by heating.

Note: Some bonding applications may require the use of a primer.

Recommended Primer: [SP-270](#)

For more information on primer application, review:

[Application & Storage Recommendations](#)

Adjustable Cure Schedule

Product cures at room temperature and a wide range of elevated temperatures and cure times to accommodate different production needs. [Contact](#) us for details.

Packaging

250 ml SxS Kit
1 Pint Kit (505 g)
5 Gallon Kit (20.2 kg)

Warranty

12 Months

SPECIFICATIONS

Do not use the typical properties shown in this technical profile as a basis for preparing specifications. Please [contact](#) us for assistance and recommendations in establishing limits for product specifications.

WARRANTY INFORMATION

The warranty period provided by NuSil Technology LLC is 12 months from the date of shipment when stored below 40°C in original unopened containers. Unless NuSil provides a specific written warranty of fitness for a particular use, NuSil's sole warranty is that the product will meet NuSil's then current specification. NuSil 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'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 expressly disclaims any liability for incidental or consequential damages.

PATENT / INTELLECTUAL PROPERTY WARNING

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ADVANCED TECHNOLOGIES

WARNINGS ABOUT PRODUCT SAFETY

NuSil believes, to the best of its knowledge, that the information and data contained herein are accurate and reliable. The user is responsible to determine the material's suitability and safety of use. NuSil cannot know each application's specific requirements and hereby notifies the user that it has not tested or determined this material's suitability or safety for use in any application. The user is responsible to adequately test and determine the safety and suitability for their application and NuSil makes no warranty concerning fitness for any use or purpose. NuSil has completed no testing to establish safety of use in any medical application.

NuSil has tested this material only to determine if the product meets the applicable specifications. (Please [contact](#) us for assistance and recommendations when establishing specifications.) When considering the use of NuSil products in a particular application, review the latest Material Safety Data Sheet and [contact](#) us 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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Mixing Technology

The **DASD™ DualServo Drive Mixers** is the most advanced mixing technology available today, fully capable of mixing a variety of materials from thick to thin in any combination quickly and repeatably.

Contact our mixing gurus today:
www.synergymixers.com



NO
Bubbles



NO
Blades



NO
Cleanup

Dispensing Solutions

With over 25 years of knowledge in dispensing solutions, we are available to assist you with your dispensing and fine-tune your processes. Our catalogue features precision systems that provide consistent fluid applications, leading to enhanced accuracy, increased yields, decreased material expenses, improved process control, and a safer work environment.

Contact us today to discuss your options:
sales@silicone-polymers.co.uk



Silicone Cleaning & Removal

To ensure a safe and clean environment and to prevent contamination that could impact your silicone in the future, we recommend using the following products on the link below:

[PST- Silicone Cleaning and Removal](#)

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