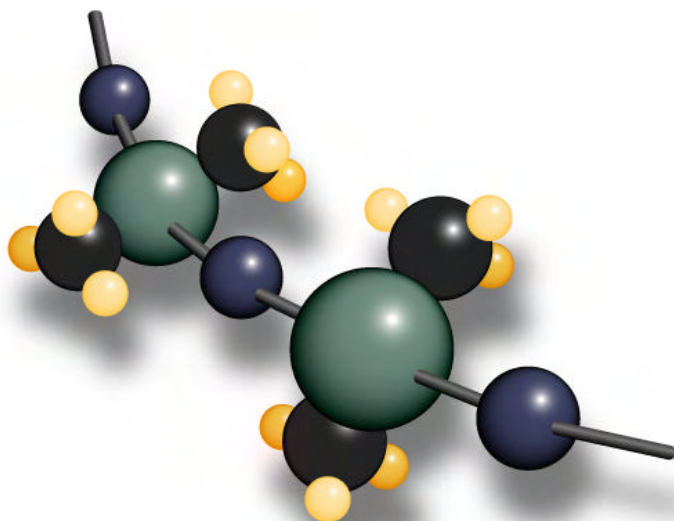


Polymer Systems Technology Limited

UK & Ireland Distributor



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R-2183

Addition Cure Silicone Dispersion

Description

- Two-part, low viscosity, silicone elastomer dispersed in xylene
- Designed for enhanced performance in extreme low and high temperatures
- Convenient 1:1 Mix Ratio (Part A: Part B)

Applications

- For dip casting and heat-curing of thin elastomeric films

Properties	Average Result	ASTM	NT-TM
Uncured:			
Appearance	Transparent to translucent	D2090	002
Non-Volatile Content	35%	D2288	004
Viscosity	850 cP (850 mPas)	D1084, D2196	001
Cured: 30 minutes minimum @ ambient temp. and humidity, 45 minutes @ 75°C (167°F), and 135 minutes @ 150°C (302°F). Stabilize for 3 hours minimum @ ambient temp. and humidity (The given ramped cure schedule is suggested to remove solvent prior to elevated temperature cure)			
Durometer, Type A	35	D2240	006
Tensile Strength	1,550 psi (10.7 MPa)	D412	007
Elongation	800%	D412	007
Tear Strength	175 ppi (30.9 kN/m)	D624	009
Stress @ 300% Strain	350 psi (2.4 MPa)	D412	007

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

Thoroughly stir individual components prior to addition to ensure homogeneity. Mix in a 1:1 ratio by weight or volume. Exercise care to prevent solvent loss during deairing. Accomplish additional dilution for thin film applications by adding appropriate solvent.

Warning: Consult the MSDS for R-2183 prior to use as its solvent carrier is hazardous.

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 material being deaerated. Hold vacuum until bulk deaeration is complete.

Inhibition Concerns

Cures in contact with most materials. Exceptions include: sulfur-cured organic rubbers, latex, chlorinated rubbers, some RTV silicones and unreacted residues of some curing agents.

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. This type of silicone typically remains flexible at extremely low temperatures and has been known to perform at -140°C (-220°F) as well as resist

Packaging

2 Pint Kit (910 g)
 2 Gallon Kit (7.28 kg)
 10 Gallon Kit (36.4 kg)

Warranty

12 Months

breakdown at elevated temperatures up to 300°C (572°F). The user is responsible to verify performance of a material in a specific application.

RoHS and REACH Compliance

R-2183 is compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) regulation contained in Article 4(1) of the European Parliament and Council's Directive 2002/95/EC. RoHS mandates that manufacturers restrict the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polychlorinated biphenyls, and polybrominated diphenyl ethers in electrical and electronic equipment.

R-2183 is also compliant with the Registration, Evaluation, and Authorization of Chemicals (REACH) regulation (European Union 1907/2006). R-2183 does not contain any of the chemicals or substances identified as Substances of Very High Concern (SVHC) by the European Chemicals Agency (ECHA), which oversees REACH compliance.

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

Specifications

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.

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.

Warnings About Product Safety

NuSil Technology 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 Technology 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 Technology makes no warranty concerning fitness for any use or purpose. NuSil Technology has completed no testing to establish safety of use in any medical application.

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.

Patent / Intellectual Property Warning

NuSil Technology disclaims any expressed or implied warranty against the infringement of any domestic or international patent/intellectual property right. NuSil Technology does not warrant the use or sale of the products described herein will not infringe the claims of any domestic or international patent/intellectual property right covering the product itself, its use in combination with other products, or its use in the operation of any process.