

R-2180-2

Addition-cure high tear silicone dispersion

DESCRIPTION

- Two-part silicone elastomer dispersed in xylene
- Two medium viscosity parts blend easily in a convenient 1:1 ratio (Part A:B)

APPLICATION

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

PROPERTIES

Typical Properties	Average Result	Standard	NT-TM
Uncured:			
Appearance, Part A	Translucent	ASTM D2090	002
Appearance, Part B	Black	ASTM D2090	002
Non-Volatile Content	20%	ASTM D2288	004
Viscosity	3,275 cP (3,275 mPas)	ASTM D1084, D2196	001
Cured: 30 minutes minimum at ambient temperature and humidity, 45 minutes at 75°C (167°F), and 135 minutes at 150°C (302°F) (The given ramped cure schedule is suggested to remove solvent prior to elevated temperature cure)			
Durometer, Type A	45	ASTM D2240	006
Tensile Strength	1,650 psi (11.4 MPa)	ASTM D412	007
Elongation	1,000%	ASTM D412	007
Tear Strength	300 ppi (52.9 kN/m)	ASTM D624	009
Stress at 100% Strain	140 psi (0.97 MPa)	ASTM D412	007

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](#) NuSil® for assistance and recommendations in establishing limits for product 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-2180-2 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.

Substrate Considerations

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. 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's Regulatory Compliance department with any questions or for further assistance.

SPECIFICATIONS

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

Packaging

50 mL SxS Kit
2 Pint Kit (910 g)
400 mL SxS Kit
10 Gallon Kit (36.4 kg)
2 Drum Kit (360 kg)

Warranty

12 Months

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.

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](#) NuSil 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](#) NuSil 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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