

MED-2014

Silicone dispersion

DESCRIPTION

- Fully compounded, platinum-catalyzed, dimethyl-methylvinyl siloxane elastomers dispersed in xylene
- Excellent physical properties
- Usable life can be extended with refrigeration

APPLICATION

- Suitable for dip casting and heat-curing of thin elastomeric films
- For use as an adhesive for bonding and sealing silicone together
- Low viscosity makes dispersions ideal for use as sprayable coatings

NuSil™ MED-2014 shall not be considered for use in human implantation for a period of greater than 29 days.

PROPERTIES

Typical Properties	Average Result	Standard	NT-TM
Uncured:			
Appearance	Translucent	ASTM D2090	002
Non-Volatile Content	35%	ASTM D2288	004
Viscosity	1,800 cP (1,800 mPas)	ASTM D1084, D2196	001
Cured: 60 minutes at 50°C; 60 minutes at 150 C; Stabilize 3 hours minimum at ambient temperature and humidity			
Durometer, Type A	35	ASTM D2240	006
Tensile Strength	1,700 psi (11.72 MPa)	ASTM D412	007
Elongation	900%	ASTM D412	007
Tear Strength	160 ppi (33.6 kN/m)	ASTM D624	009
Tissue Culture (Cytotoxicity Testing)	Pass	USP <87> ISO 10993-5	061
Elemental Analysis of Trace Metals	Pass	ASTM E305	131

The above properties are tested on a lot-to-lot basis. Do not use as a basis for preparing specifications. Please [contact](#) NuSil Technology for assistance and recommendations in establishing particular specifications.

INSTRUCTIONS FOR USE

Mixing

Thoroughly stir material to ensure homogeneity. Exercise care to prevent solvent loss during deairing. Accomplish additional dilution for thin film applications by adding appropriate solvent. Mixer design/size/type, blade/propeller type, shear/RPM levels, and heat generated during mixing, are important parameters and should be addressed in order to have an adequately mixed dispersion.

Warning: Consult the MSDS for MED-2014 prior to use, as its solvent carrier is hazardous.

Coating & Use

Dispersions are more commonly used in dip molding processes, but can also be sprayed or cast. Make sure to apply under a fume hood or in a well-ventilated environment. Care should be taken before placing coated mandrels or parts in oven due to the presence of solvent. Reference cure schedule for devolatilization times. For further information, please see NuSil's A Guide to Silicone Dispersions – Strategies for Processing and Troubleshooting.

Note: Some bonding applications may require the use of a primer. NuSil Technology's MED1-161 is recommended. For more information on primer selection, visit www.nusil.com and review Choosing a Silicone Primer/Adhesive System.

Storage

Most dispersions are stored prior to application. It is important to note that NuSil recommends keeping the dispersion in its original container when possible, tightly sealed and stored below 40° C. Care should be taken to prevent solvent evaporation and contamination during long or short term storage.

Instructions for Use

Thin MED-2014 to the desired consistency with xylene, the suggested solvent. Mix the material thoroughly before use. Achieve best results by filtering the dispersion appropriately before use. Take care to avoid solvent evaporation and air entrapment.

When using any solvent, always provide adequate ventilation and avoid skin contact. Follow manufacturer's label instructions and refer to appropriate MSDS.

The mold, mandrel, or part being coated with dispersion should be free from contamination, not inhibit the cure, and be able to withstand the cure cycle. Apply the dispersion by brushing, spraying, or dipping. Control the thickness by building up successive, thin (1-2 mil) coats. Allow the bulk of the solvent to evaporate between coats. When the desired thickness is

Packaging

1 Pint (450 g)
1 Gallon (3.4 kg)
5 Gallon (17.0 kg)
1 Drum (180 kg)

Warranty

3 Months

obtained, set aside the coated object and allow the solvent to completely evaporate. Controlled low-humidity conditions will reduce bubbles while coating.

Caution

MED-2014 will cure in contact with most materials. Exceptions include butyl, latex, chlorinated rubbers, some RTV silicones, and unreacted residues of some curing agents.

FDA MASTER FILE

A Master File for MED-2014 has been filed with the U.S. Food and Drug Administration. Customers interested in authorization to reference the Master File must [contact](#) NuSil Technology.

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 3 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

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