

MED1-4013, MED2-4013 & MED3-4013

Fast-cure silicone adhesives

DESCRIPTION

- Two-part, translucent, thixotropic, high tear strength silicone systems
- MED1-4013 and MED3-4013 cure at room temperature and all three cure rapidly with the application of heat in an oven, or by a heat gun or lamp
- Many bonding applications do not require the use of a silicone primer for suitable adhesion
- Do not require atmospheric moisture to cure
- No curing byproducts such as acetic acid or methyl alcohol

APPLICATION

- Consistency allows products to be supplied in easy-to-use, airless side-by-side kits that eliminate mixing and deairing difficulties
- MED1-4013 has a work time of ~15 minutes, MED2-4013 has a minimum work time of 15 hours, and MED3-4013 has a minimum work time of 60 minutes
- MED1-4013 & MED3-4013 cure in less than 24 hours at room temperature

NuSil™ MED1-4013, MED2-4013, & MED3-4013 are restricted products. They shall not be considered for use in human implantation for a period of greater than 29 days.

PROPERTIES

Typical Properties	Result	Metric Conv.	Standard	NT-TM
Uncured:				
Appearance	Translucent	-	ASTM D2090	002
Viscosity, Part A	80,000 cP	80,000 mPas	ASTM D1084, D2196	001
Work Time, MED1-4013	15 minutes	-	-	008
Work Time, MED2-4013	15 hours minimum	-	-	008
Work Time, MED3-4013	60 minutes minimum	-	-	008

Typical Properties	Result	Metric Conv.	Standard	NT-TM
Cured: 24 hours at 25°C (MED1-4013 & MED3-4013)				
Cured: 15 minutes at 150°C (MED2-4013)				
Specific Gravity	1.12	-	ASTM D792	003
Durometer, Type A, MED1-4013, MED3-4013	20	-	ASTM D2240	006
Durometer, Type A, MED2-4013	15	-	ASTM D2240	006
Tensile Strength	1,000 psi	6.9 Mpa	ASTM D412	007
Elongation	800%	-	ASTM D412	007
Tear Strength	130	23.0 kN/m	ASTM D624	009

INSTRUCTIONS FOR USE

Mixing

MED1-4013, MED2-4013, & MED3-4013 mix at a 1:1 mix ratio when extracted from their side-by-side kits through a static mix and dispense cartridge. Attach the disposable static mix tip to the cartridge and extrude the product directly onto the substrate.

Note: NuSil Technology LLC recommends discarding the first few grams of extruded material.

MED1-4013, MED2-4013, & MED3-4013 can also be purchased in standard two-part kits. When using standard kits, take care to minimize air entrapped while mixing. Place the mixed product in a vacuum chamber to remove entrapped air and subsequently reduce bubble formation during curing.

Substrate Consideration

MED1-4013, MED2-4013, & MED3-4013 cure in contact with most materials common to biomedical assemblies. Exceptions include: sulfur cured organic rubbers, latex, chlorinated rubbers, some RTV silicones and unreacted residues of some curing agents. Clean units being encapsulated or potted to ensure they are free of surface contaminants. Also clean and dry containers and dispensers being used with MED1-4013, MED2-4013, & MED3-4013. Prevent cure inhibition by washing all containers with clean solvent or volatilizing the contaminants by heating.

Adjustable Cure Schedule

Products cure at a wide range of cure times and temperatures to accommodate different production needs. [Contact](#) NuSil Technology LLC for details.

Packaging

50 ml SxS Kit
200 ml SxS Kit
400 ml SxS Kit
2 Pint Kit (910 g)
2 Gallon Kit (7.28 kg)
10 Gallon Kit (36.4 ka)

Warranty

12 Months

FDA MASTER FILE

A Master Access File for these products is on file with the U.S. Food and Drug Administration (FDA). 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 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.

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