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UK & Ireland Distributor



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NuSil Technology

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An ISO 9001 Certified Company

Product Profile

MED-4901

Liquid Injection Molding Silicone Elastomer

Description:

NuSil Technology MED-4901 Silicone Elastomer is a two-part, translucent silicone system designed for use with injection molding equipment. When properly cured, MED-4901 offers medium tear strength and a 40 Type “00” durometer. In addition it has good electrical properties and an operating temperature range of -65°C to 250°C (-85°F to 484°F).

The benefits of this material include:

- A Rapid Cure,
- No post-cure required,
- Less yellowing with age, and
- Increased efficiency over transfer molding.

Applications:

Use for applications requiring extremely low durometer and medium tear strength. MED-4901 is ideal for molding vibration dampening pads for sensitive electronic devices, as well as other devices that require its unique cushioning characteristic.

NuSil Technology’s MED-4901 is a restricted product. It shall not be considered for use in human implantation for a period of greater than 29 days.

Instructions for Use:

Mixing

MED-4901’s parts are supplied in a convenient 1:1 mix ratio for use with automatic mix and dispense equipment. If mixing by hand, take care to minimize air entrapment during mixing.

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

MED-4901 will 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.

Adjustable Cure Schedule

Product cures at a wide range of cure times and temperatures to accommodate different production needs. Contact NuSil Technology for details.

Typical Properties:

Uncured Properties:

Extrusion Rate, gpm	125
Chemical Classification	VMQ
Color	Translucent
Working Time, hours	6 minimum
Mix Ratio (by weight)	1:1

Cured Properties:

Cured 60 min. @ 150°C (302°F)	
Durometer, Type “00”	40
Tensile Strength, psi / MPa	350 / 2.4
Elongation, %	1,150
Tear Strength, ppi. Die B / kN/m	60 / 11.6
Stress @ 300%, psi / MPa	40 / 0.3

Test Methods:

	<u>ASTM</u>	<u>NTM⁽¹⁾</u>
Durometer Hardness	D2240	006
Tensile Strength, psi	D412	007
Elongation, %	D412	007
Tear Strength	D624	009
Stress @ 300%, psi	D412	007

Packaging:

Two Pint Kit
Two Gallon Kit
Ten Gallon Kit
Two Drum Kit

FDA Master File:

A Master File for MED-4901 will be filed with the U.S. Food and Drug Administration. Customers interested in authorization to reference this file must contact NuSil Technology.

Warnings About Product Safety:

NuSil Technology believes that the information and data contained herein is accurate and reliable. However, 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 for meeting 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, obtain available product safety information and take the necessary steps to ensure safety of use.

Specifications:

Do not use the typical properties shown in this technical profile as a basis for preparing specifications. Please contact NuSil Technology for assistance and recommendations in establishing particular specifications.

Patent Warning:

NuSil Technology disclaims any expressed or implied warranty against the infringement of any patent. NuSil Technology does not warrant the use or sale of the products described herein will not infringe the claims of any United States' or other country's patents covering the product itself, its use in combination with other products or its use in the operation of any process.

Warranty Information:

NuSil Technology's warranty period 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 any other expressed or implied warranty, including 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.