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UK & Ireland Distributor



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MED-2245

Silicone Elastomer

Product Profile

Description

- A three-part system. Part A consists of a platinum-catalyzed high consistency base. Part B is a crosslinker and Part C is an inhibitor
- MED-2245 is solvent-free but can be dispersed utilizing various solvents
- 100 : 0.7 : 0.16 Mix Ratio (Part A: Part B: Part C)

Applications

- For fabricating silicone elastomeric parts by molding or extruding
- When dispersed, can be used to make membranes or cast films

Typical Properties	Result	Metric Conv.	ASTM	NT-TM
Uncured:				
Plasticity	95 mils	-	D926	058
Appearance	Translucent, pale tan	-	D2090	002
Cured: *				
Durometer, Type A	40	-	D2240	006
Tensile Strength	1,525 psi	10.5 MPa	D412	007
Elongation	800%	-	D412	007
Tear Strength	200 ppi	35.3 kN/m	D624	009
Stress @ 200% Strain	200 psi	1.4 MPa	D412	007

* Components are blended, press-cured for 10 minutes @ 171°C (340°F), post-cured for 2 hours @ 148°C (300°F) and stabilized for 3 hours @ ambient temperature.

Instructions for Use

If using as a dispersion, use mild mixing to disperse Part A in solvent at a higher concentration than the final desired concentration. Use aromatic or aliphatic solvents such as hexane, toluene, or xylene to prepare the dispersion. In addition to solubility, take into account flammability and toxicity when choosing a solvent. A typical solids concentration is 15% by weight. The user should determine the specific solvent and solids concentration to obtain optimum results.

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

Disperse Part A of MED-2245 as follows:

- Soften the elastomer on a mill. Sheet the elastomer off the mill and cut into small pieces.
- Place the elastomer in a suitable mixing container and add just enough solvent to cover it completely. Cover the container and let it stand overnight at room temperature.
- Stir the resulting mass with a propeller-type mixer until a uniform consistency is obtained.
- When thoroughly dispersed, add solvent in small amounts, stirring thoroughly after each addition until the desired concentration or viscosity is obtained.

For optimum dispersion working time, add 0.16 parts by weight of Part C to 100 parts of Part A and mix thoroughly. Add 0.7 parts by weight of Part B to 100 parts of part A. Mix thoroughly to avoid localized concentrations. The work time of the mixture will depend on the solvent, solids content, temperature and storage conditions. When properly stored, a usable life of three months from the date of mixing is typical.

Appropriately filter the dispersion before use for best results. Always thoroughly mix the dispersion before use and take care to avoid solvent evaporation and air entrapment.

Packaging

1 Pound Kit (463 g)
 5 Pound Kit (2.305 kg)
 25 Pound Kit (11.38 kg)

Warranty

12 Months

The part being coated with the dispersion should be free of contamination, should not inhibit the cure, and should be able to withstand the cure cycle. Apply the dispersion by brushing, spraying or dipping. Control thickness by building up successive coats (1 to 2 mil). Allow the bulk of the solvent to evaporate between coats. When the desired thickness is obtained, set the mold or mandrel aside and allow the solvent to completely evaporate. Then cure in an air-circulating oven at a temperature not exceeding 210°C (410°F). The cure time will depend upon the oven temperature and the film thickness. The user must establish the cure cycle for a specific application (use 15 minutes at 160°C (320°F) as a starting point). The elastomer may be post-cured to stabilize and enhance physical properties.

Cure Inhibition

MED-2245 cures in contact with most materials. Exceptions include: butyl, latex, chlorinated rubbers, some RTV silicones and unreacted residues of some curing agents.

Flammability

Observe adequate precautions when handling and storing Part C due to its volatility and flammability. Avoid prolonged breathing of vapors and contact with the eyes. When handling Part C, it is advisable to wear chemical splash goggles since the material can cause burns to the eyes if direct contact occurs.

Combustibility

Part B is combustible and should be stored in accordance with the instructions on the label.

FDA Master Access File

A Master Access File for MED-2245 has been filed with the U.S. Food and Drug Administration. Customers interested in authorization to reference the Master Access File must contact NuSil Technology.

Warnings About Product Safety

NuSil Technology believes the information and the data contained herein are 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 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, 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

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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.