Factor II, Incorporated

Inventing and Innovating…
(Information: 1.928.537.8387)
ONLINE ORDERING www.factor2.com

PRODUCT INFORMATION
A-103 MEDICAL GRADE ELASTOMER

PRODUCT DESCRIPTION:

Medical Grade Elastomer is apourable two-component product which, when combined, cures to a translucent silicone rubber at room temperature or slightly elevated temperatures. The elastomer component consists of a dimethylsiloxane polymer, a reinforcing silica and a platinum catalyst. The curing agent component consists of a dimethyl- siloxane polymer, an inhibitor and a siloxane crosslinker. Medical Grade Elastomer is made to exacting specifications to meet high quality standards for medical applications. Advantages of this product include: Room-temperature and heat-accelerable cure, good thick section cure, excellent dielectric properties, essentially no shrinkage when cured at room temperature is designed for use in medical device encapsulating and moldmaking applications where cure is at room temperature or slightly elevated temperatures. It has, for example, been used as a flexible mold to facilitate the encapsulation of electronic components of biomedical devices. It can also be used as a drug matrix for controlled release drug delivery systems. The purchaser should thoroughly test products made in part or otherwiseincorporating Medical GradeElastomer to determine the acceptability of the product's performance in a specific application.

TYPICAL PROPERTIES AS SUPPLIED:

Color	Translucent	Durometer Shore A	27
Viscosity	70,000 cps	Tensile Strength, psi	650
		Elongation, %	500

MIXING:

Thoroughly mix one part of curing agent with 10 parts by weight of the base elastomer. The viscosity of the mix will be about one-half of the original base viscosity. During mixing, care should be taken to minimize entrapment of air.

De-Airing:

If a void-free finished part is desired, the entrapped air must be removed from the mixed materials. Exposure to a vacuum of about 28 inches of mercury for approximately 30 minutes is usually adequate. Release of the vacuum several times during the early phase will help break the bubbles that form. After de- airing, if the materials are to be cured at elevated temperatures, let the material stand for 10 minutes to allow the remaining traces of gasses to escape from the material. The container holding the material should be at least four times the volume of the mixture to allow for expansion.

Curing:

A cure of approximately 24 hours at23°C (73°F) is required for the material to be sufficiently cured for handling. Full cure is achieved in about three days at room temperature. The cure may be accelerated with any of the following schedules:

5 hours.....40°C (104°F)
2 hours.....55°C (131°F)
30 minutes ..... 75°C (167°F)
15 minutes ..... 100°C (212°F)

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Curing Compatibility:

Medical Grade Elastomer will cure in contact with many materials. However, exceptions that have been noted are chlorinated and butyl rubbers, some RTV silicone rubbers, and the unreacted components of some plastics. Often, troublesome substrates that inhibit the proper curing of Medical Grade Elastomer can be made compatible by solvent washing or by heating.

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