

# MED-5870

## Liquid silicone rubber

### DESCRIPTION

- Two-part, translucent silicone system designed for use with injection molding equipment
- Rapid cure with no post-cure required
- 1:1 Mix Ratio (Part A: Part B)

### APPLICATION

- For the injection molding of parts requiring a material with a high durometer including: molded rubber stoppers, gaskets, seals, valves, o-rings and other precision parts
- Suitable for over-molding applications
- Can be used with NuSil's Healthcare color masterbatches for applications requiring colored silicones

NuSil™ MED-5870 may be considered for use in human implantation for a period of greater than 29 days.

### PROPERTIES

| Typical Properties                       | Average Result      | Standard   | NT-TM |
|--|---------------------|------------|-------|
| <b>Uncured:</b>                          |                     |            |       |
| Appearance                               | Translucent         | ASTM D2090 | 002   |
| Extrusion Rate**, Part A                 | 100 g/min           | ASTM C603  | 033   |
| Extrusion Rate**, Part B                 | 100 g/min           | ASTM C603  | 033   |
| Work Time                                | > 72 hours          | -          | 008   |
| <b>Cured: 5 minutes at 165°C (329°F)</b> |                     |            |       |
| Specific Gravity                         | 1.14                | ASTM D792  | 003   |
| Durometer, Type A                        | 68                  | ASTM D2240 | 006   |
| Tensile Strength                         | 1,250 psi (9.2 MPa) | ASTM D412  | 007   |
| Elongation                               | 400%                | ASTM D412  | 007   |
| Tear Strength                            | 225 ppi (26.4 kN/m) | ASTM D624  | 009   |
| Stress at 200% Strain                    | 900 psi (1.1 MPa)   | ASTM D412  | 007   |

| Typical Properties                    | Average Result | Standard                | NT-TM |
|---------------------------------------|----------------|-------------------------|-------|
| Tissue Culture (Cytotoxicity Testing) | Pass           | USP <87><br>ISO 10993-5 | 061   |

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.

\*\* Performed using a Semco model 250-A pneumatic gun with a 1/8" nozzle orifice and 90 +/- 5 psi air pressure.

## INSTRUCTIONS FOR USE

### Mixing

Combine Part A and Part B in a 1:1 mix ratio prior to use. Airless mixing, metering or dispensing equipment is recommended for production operations. If mixing by hand, take care to minimize air entrapment.

### Vacuum Deaeration

Remove air entrapped during mixing by common vacuum deaeration procedure, observing all applicable safety precautions. Slowly apply full vacuum to a suitable container of at least four times the volume of material being de-aired. Hold vacuum until bulk deaeration is complete.

### Substrate Considerations

Cures 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.

### Vulcanization

Curing of the blended elastomer is accelerated by heat. The pre-measured catalyst provides a fixed cure rate. Do not attempt to change molding times by mixing the two components in any other than a 1:1 ratio, as this will affect the properties of the elastomer. Only temperature adjustments should be employed to alter the rate of cure.

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

## FDA MASTER FILE

A Master File for MED-5870 has been filed with the U.S. Food and Drug Administration. Customers interested in authorization to reference the Master File must [contact](#) NuSil Technology.

### Packaging

10 Gallon Kit (36.4 kg)  
2 Drum Kit (360 kg)

### Warranty

12 Months

## 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

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