

SealPot SP4012

Silicone Potting Firm Gel

| Typical Properties | | | |
|----------------------------------|-------------|-------------|------------------|
| Property | Unit | Value | Test Method |
| Color / Component A | | Translucent | Visual |
| Color / Component B | | Translucent | Visual |
| Density | Gram /cc | 0.98 | ASTM D792 |
| Viscosity at 25°C | cP.s | 450 | ASTM D2196 |
| Property as Cured | | | |
| Color | | Translucent | Visual |
| Hardness | Shore OO | 35 | ASTM D2240 |
| Dielectric Constant | @100Hz | 2.60 | ASTM D150 |
| Dielectric Constant | @100 KHz | 2.66 | ASTM D150 |
| Dissipation Factor | @100 Hz | < 0.003 | ASTM D150 |
| Dissipation Factor | @100 KHz | < 0.001 | ASTM D150 |
| Dielectric Strength | Volt/mil AC | > 480 | ASTM D149 |
| Volume Resistivity | Ohm-cm | > 10E+14 | ASTM D257 |
| Coefficient of Thermal Expansion | ppm/°C | 300 | IPC-TM-650 |
| Tg | °C | -120 | DSC |
| Useful Temperature Range | °C | -55 to 200 | TGA |
| Shelf Life | Month | > 6@ <4°C | Viscosity double |
| Cure Profile | | | |
| Cure at 25°C | Hours | ~12 | DSC |
| Cure at 125°C | Minutes | 30 | DSC |
| Weight loss in cure | Weight % | < 0.5% | TGA |
| Pot / Work Life at 25°C | Hours | 2 | Viscosity double |

These figures are only intended as a guide and should not be used in preparing specifications.

Processing Instruction

Important! SealPot SP4012 is platinum cure system. Please keep applied surface / housing clean and avoid using this material on any place that contains sulfur, amine, phosphorous, organo-metals, acid, etc. because these contaminants could inhibit the cure the material.

We recommend running preliminary tests to optimize conditions for the particular application. Comprehensive processing instructions can be obtained by contacting directly to United Adhesives Inc.

Storage

SealPot SP4012 has a shelf life of at least 6 months when stored at ~4°C in the originally sealed container. Storage beyond the date specified does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety information

SealPot SP4012 silicone contains neither toxic nor corrosive substances that might require special handling precautions. General hygiene regulations should be observed. Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from United Adhesives Inc.

Characteristics

SealPot SP4012 is a two-part translucent potting gel. It is a flowable, addition-curing, silicone that cures at elevated temperature to a very firm rubbery gel with excellent adhesion to various plastics and metals. It is non-corrosive and self-priming adhesion, and can be automated to dispense from pails or hand extruded from cartridge.

Special Features and Benefits

- Very soft for stress compliance
- Excellent dielectric properties
- Mechanical shock and vibration damping
- Low bleeding, low volatile
- Broad range of temperature stability

Typical Applications

- Pot / encapsulate parts and cavities
- Seal lids, covers, housings, connectors
- Coat various electronic parts
- Automotive electronics
- Semiconductor and Telecommunications
- Vibration dampening
- Thermal stress coupling

For the non-sag (thixotropic) version of this potting gel, please select the United Adhesives' product SealPot SP4018. For room temperature cure RTV silicone potting rubber, please select United Adhesives' product SealPot SP4510.

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose. For technical, quality, or product safety questions, please contact directly to United Adhesives Inc.