

## SilTRUST™ TSE3660 POTTING

Liquid Silicone Rubber for Potting

### Description

SilTRUST TSE3660 is a two-component condensation cure silicone rubber designed for electric potting. SilTRUST TSE3660 potting cures at room temperature to form an elastic rubber and adheres to various types of materials such as metal, plastics, glass and ceramics without the use of primers.

TSE3660(A)/(B) : General grade (TFT: 15min)

TSE3660(A)/(C) : Fast cure grade (TFT: 10min)

### Key Features and Typical Benefits

- Low viscosity allows for excellent flowability
- Fast cure and excellent deep section cure
- Excellent adhesive properties: primerless adhesion to many types of substrates
- No cure inhibition
- Flame retardant: UL94HB recognized (File No.E56745) : TSE3660(A)/(B)

### Typical Physical Properties

(JIS K 6249)

| Property                             | Unit | Value      |            |            |            |
|--------------------------------------|------|------------|------------|------------|------------|
| Uncured Properties<br>(23 °C, 50%RH) |      | TSE3660(A) | TSE3660(B) | TSE3660(A) | TSE3660(C) |
| Appearance                           |      | White      | Blue-Green | White      | Blue-Green |
| Specific Gravity                     |      | 1.27       | 1.02       | 1.27       | 1.02       |
| Viscosity                            | Pa·s | 3.1        | 0.01       | 3.1        | 0.01       |
| Mixing ratio by weight               |      | 100 : 8    |            | 100 : 8    |            |

|                        |     |          |          |
|------------------------|-----|----------|----------|
| Mixing ratio by volume |     | 100 : 10 | 100 : 10 |
| Pot Life               | h   | 0.1      | 0.1      |
| Tack-Free time         | min | 15       | 10       |

Typical physical properties are average data and should not be used as or to develop product specifications.

### Typical Physical Properties, continued

| <u>Property</u>                           | <u>Unit</u>       | <u>Value</u>                  |                               |
|-------------------------------------------|-------------------|-------------------------------|-------------------------------|
| Cure Properties ( 3 days at 23 °C, 50%RH) |                   |                               |                               |
| Appearance                                |                   | Elastic rubber,<br>Blue-Green | Elastic rubber,<br>Blue-Green |
| Density                                   | g/cm <sup>3</sup> | 1.27                          | 1.27                          |
| Hardness (Type A)                         |                   | 31                            | 33                            |
| Tensile Strength                          | MPa               | 1.0                           | 1.1                           |
| Elongation                                | %                 | 100                           | 100                           |
| Adhesive Strength <sup>(1)</sup>          | MPa               | 0.5                           | 0.6                           |
| Volume Resistivity                        | Ω·cm              | 1.2 x 10 <sup>15</sup>        |                               |
| Dielectric Strength                       | kV/mm             | 26                            |                               |
| Dielectric Constant (60Hz)                |                   | 3.4                           |                               |
| Dissipation Factor (60Hz)                 |                   | 0.02                          |                               |

Typical physical properties are average data and should not be used as or to develop product specifications.

<sup>(1)</sup>Aluminum lap shear

### Potential Applications

- Potting of electric and communications parts

## Adhesion Capability

| <u>Substrate</u>                  |   |
|-----------------------------------|---|
| Aluminum                          | O |
| Stainless Steel                   | O |
| Copper                            | O |
| Polyester                         | O |
| Epoxy Resin                       | O |
| Polycarbonate                     | O |
| Acrylic Resin                     | O |
| ABS                               | O |
| PBT (Polybutylene terephthalate)  | O |
| PPS (Polyphenylene sulfide)       | O |
| PET (Polyethylene terephthalate)  | O |
| Noryl (PPO = Polyphenylene oxide) | O |
| Phenolic Resin                    | O |
| Nylon-6                           | O |
| Nylon-66                          | O |
| Glass                             | O |
| PVC (Polyvinylchloride)           | O |
| Steel                             | O |

Note: Test results. Actual data may vary

O: Excellent (Cohesive failure)

## General Instruction for Use

### Mixing

In case of filler sedimentation of (A) component during storage, mix it homogeneously before using. Select a mixing container 4-5 times larger than the volume of silicone rubber compound to be used. Weight out (A)/(B) or (A)/(C) with clean tools, thoroughly mix them, scraping the sides and the bottom of the container carefully to produce a homogeneous mixture.

### Deaeration and curing

Air entrapped during mixing should be removed to eliminate voids in the cured rubber.

Expose the mixed material to a vacuum of about 20mm of mercury. The material will expand, crest, and recede to about the original level as the bubbles break. Degassing is usually complete about two minutes after frothing ceases. Pour the material in the part, and leave it with the room temperature.

### **Patent Status**

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

### **Product Safety, Handling and Storage**

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at [www.momentive.com](http://www.momentive.com) or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

### **Limitations**

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

### **Contact Information**

For product prices, availability, or order placement, contact our customer service at [Momentive.com/CustomerService/](http://Momentive.com/CustomerService/)

For literature and technical assistance, visit our website at: [www.momentive.com](http://www.momentive.com)

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