

# Product Data

## Silicone Rubber for Mold Making TSE3488T

TSE3488T is a two-component, addition cure liquid silicone rubber designed for mold making. TSE3488T cures at room temperature to a high strength elastic rubber with the addition of curing agent.

### KEY FEATURES

- ◆ Excellent molding durability to epoxy resin and polyurethane
- ◆ Excellent releasability
- ◆ Low viscosity for easy degassing
- ◆ Excellent transparency
- ◆ High tear and tensile strength

### APPLICATIONS

- ◆ Prototype mold making for electric, electronic and automotive industries
- ◆ Emblem for shoes, shirts, etc.

### TYPICAL PROPERTY DATA

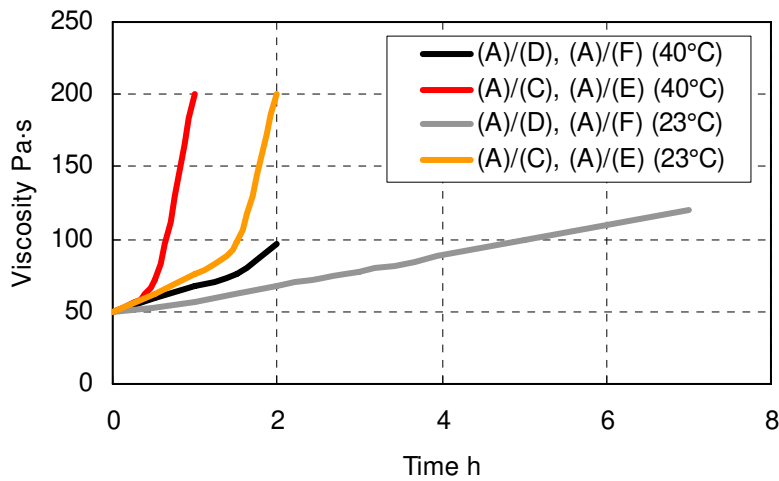
| UNCURED PROPERTIES            |                   |             |  |                  |  |
|-------------------------------|-------------------|-------------|--|------------------|--|
| BASE COMPOUND                 |                   | TSE3488T(A) |  |                  |  |
| Appearance                    |                   | Translucent |  |                  |  |
| Viscosity (23°C)              | Pa·s {P}          | 90 {900}    |  |                  |  |
| CURING AGENTS                 |                   | TSE3488T(C) | TSE3488T(D)  | TSE3488T(E)      | TSE3488T(F)  |
| Features                      |                   | Standard    | Extended pot life and fast cure at elevated temperatures | Longer mold life | Longer mold life, extended pot life and fast cure at elevated temperatures |
| Appearance                    |                   | Transparent |  |                  |  |
| Viscosity (23°C)              | Pa·s {P}          | 1.0 {10}    | 1.1 {11}   | 0.5 {5}          | 0.5 {5}  |
| Mixing ratio                  | wt %              | 10          | 10   | 10               | 10   |
| Mixed viscosity (23°C)        | Pa·s {P}          | 50 {500}    | 50 {500}   | 50 {500}         | 50 {500}   |
| Work Pot life<br>h            | 23°C              | 1.5         | 3.0  | 1.5              | 3  |
|                               | 40°C              | 0.5         | 1.5  | 0.5              | 1.5  |
| Demold time<br>h              | 23°C              | 24          | 72   | 24               | 72   |
|                               | 40°C              | 1.5         | 6  | 1.5              | 6  |
|                               | 60°C              | 0.7         | 1.0  | 0.7              | 1  |
|                               | 80°C              | 0.2         | 0.5  | 0.2              | 0.5  |
| CURED PROPERTIES* (100°C, 1h) |                   | (A)/(C)     | (A)/(D)  | (A)/(E)          | (A)/(F)  |
| Appearance                    |                   | Translucent |  |                  |  |
| Density (23°C)                | g/cm <sup>3</sup> | 1.08        | 1.08   | 1.08             | 1.08   |
| Hardness (Type A)             |                   | 41          | 41   | 40               | 40   |

|                                |                            |          |          |          |          |
|--------------------------------|----------------------------|----------|----------|----------|----------|
| Tensile strength               | MPa {kgf/cm <sup>2</sup> } | 6.1 {62} | 6.1 {62} | 6.6 {67} | 6.6 {67} |
| Elongation                     | %                          | 380      | 380      | 400      | 400      |
| Tear strength<br>N/mm {kgf/cm} | Crescent                   | 28 {29}  | 28 {29}  | 28 {29}  | 28 {29}  |
|                                | Angle                      | 28 {29}  | 28 {29}  | 30 {31}  | 30 {31}  |
| Linear shrinkage<br>%          | 23°C, 24h                  | <0.1     | <0.1     | <0.1     | <0.1     |
|                                | 23°C, 72h                  | <0.1     | <0.1     | <0.1     | <0.1     |

\* JIS K 6249

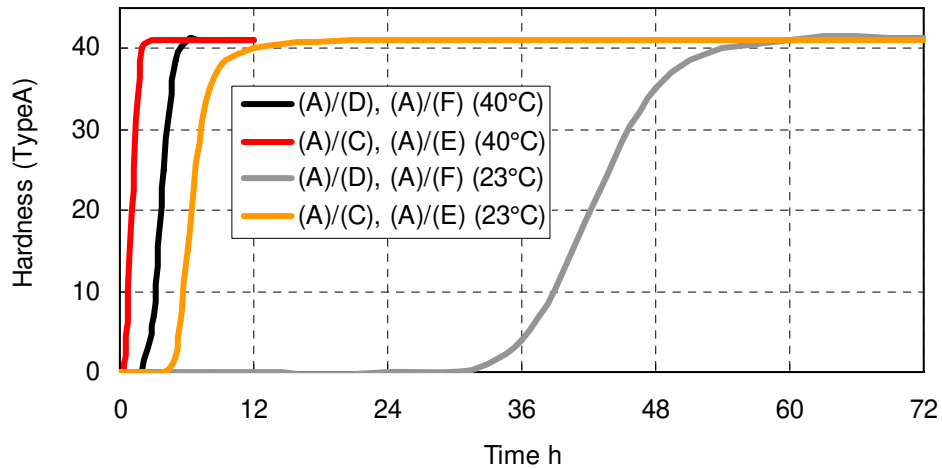
Typical product date values should not be used as specifications.

### VISCOSITY CHANGE AT 23°C AND 40°C

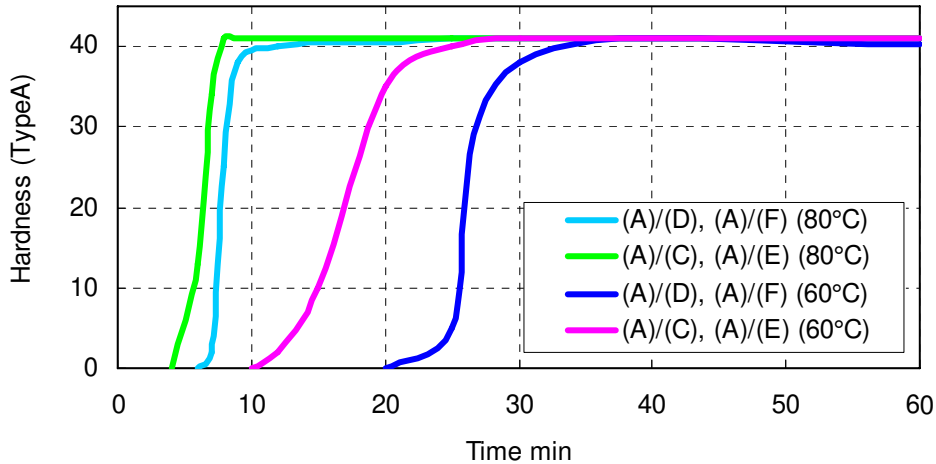


### CURING PROPERTIES

AT 23°C and 40°C



## AT 80°C and 60°C



## GENERAL INSTRUCTIONS FOR USE

- ◆ **Mixing:** Select a mixing container 4-5 times larger than the volume of silicone rubber compound to be used. Weigh out silicone rubber base and the appropriate amount of catalyst. With clean tools, thoroughly mix them, scraping the sides and the bottom of the container carefully to produce a homogenous mixture.
- ◆ **Deaeration:** 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.

Note: Certain materials containing water, sulfur, amine, organometallic compounds or phosphorus compounds, such as condensation cure silicone rubbers, clays, wood resins, synthetic rubbers, adhesive tapes, waxes and paints can cause cure inhibition. It is recommended that a preliminary test be performed to determine the compatibility.

## HANDLING AND SAFETY

- ◆ Wear eye protection and protective gloves as required while handling the product.
- ◆ Use the product in a well ventilated area.

## STORAGE

- ◆ Store in a cool, dry, dark place.
- ◆ Keep out of the reach of children.

## PACKAGING

### TSE3488T(A)

- ◆ 1kg can available in cases of 10
- ◆ 20kg pail available
- ◆ 180kg drum available

### TSE3488T(C)

- ◆ 1kg can available in cases of 10
- ◆ 18kg pail available

### TSE3488T(D)

- ◆ 100g bottle available in cases of 20
- ◆ 1kg can available in cases of 10
- ◆ 18kg pail available

### TSE3488T(E)

- ◆ 100g bottle available in cases of 20
- ◆ 1kg can available in cases of 10
- ◆ 18kg pail available

### TSE3488T(F)

- ◆ 100g bottle available in cases of 20
- ◆ 1kg can available in cases of 10
- ◆ 18kg pail available

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### **FOR INDUSTRIAL USE ONLY**

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