

# Silicone Rubber for Mold Making

## TSE3480T

TSE3480T is a two-component, addition cure liquid silicone rubber designed for mold making. TSE3480T cures at room temperature to a translucent high strength elastic rubber with the addition of curing agent.

### KEY FEATURES

- ◆ Excellent molding durability for epoxy, urethane resins
- ◆ Excellent release characteristics
- ◆ Excellent tear and tensile strength
- ◆ Low shrinkage (room temperature cure)

### APPLICATIONS

- ◆ Prototype mold making for electric & electronics industry such as TVs, home appliances, mobile phones, copy machines, etc.
- ◆ Prototype mold making for automotive industry such as console boxes, radiator grilles, lamp housings, etc.

### TYPICAL PROPERTY DATA

(JIS K 6249)

UNCURED PROPERTIES				
BASE COMPOUND		TSE3480T(A)		
Type of the part		Base compound		
Appearance		Translucent		
Viscosity (23°C)	Pas{P}	55{550}		
Curing agent		TSE3480T(B)	TSE3480T(C)	TSE3480T(D)
Features		Fast Cure	Standard	Extended pot life
Appearance		Transparent	Transparent	Transparent
Viscosity	Pas{P}	0.5(5)	0.5(5)	0.5(5)
Mixing ratio	wt %	10	10	10
Mixed viscosity (23°C)	Pas{P}	35{350}	35{350}	35{350}
Work Pot life (23°C)	h	0.5	1	4
Demold time (23°C)	h	12	24	48

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<b>CURED PROPERTIES(100°C, 1h)</b>		<b>A / B</b>	<b>A / C</b>	<b>A / D</b>
Appearance		Translucent rubber	Translucent rubber	Translucent rubber
Density (23°C)	g/cm <sup>3</sup>	1.08	1.08	1.08
Hardness(Type A)		37	37	37
Tensile strength	MPa {kgf/cm <sup>2</sup> }	6.0{60}	6.0{60}	6.0{60}
Elongation	%	6.0{60}	400	400
Tear strength (Crescent)	N/mm {kgf/cm}	20{20}	20{20}	20{20}
Tear strength (Angle)	N/mm {kgf/cm}	26{26}	26{26}	26{26}

## **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

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