Product Data

High Strength Silicone Rubber for Molding

TSE3455T

TSE3455T is a two-component, addition cure liquid silicone rubber designed for mold making. TSE3455T cures at room temperature to a translucent high strength elastic rubber with the addition of curing agents.

KEY FEATURES

- Excellent molding durability to epoxy resin and polyurethane
- Excellent release ability
- Low viscosity
- Excellent tear and tensile strength
- Low shrinkage (room temperature cure)
- Three types of curing agents available
  - (B): standard
  - (C): for strong reverse taper property
  - (D): for machine mixing
- Curing speed can be controlled with retarder ME75

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

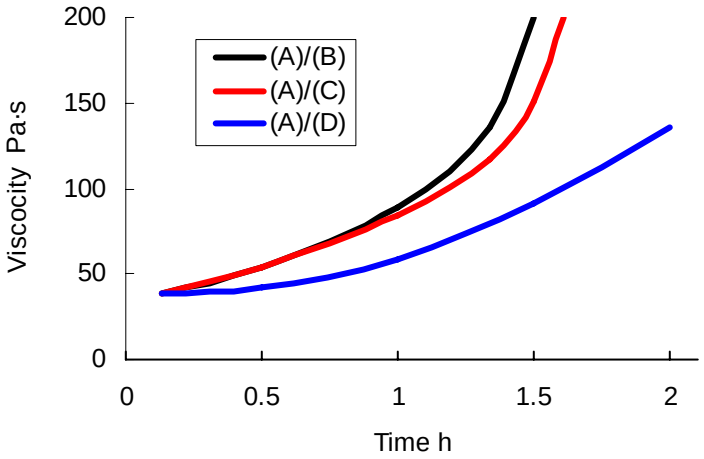
UNCURED PROPERTIES				
BASE COMPOUND		**TSE3455T(A)**		
Appearance		Translucent		
Viscosity (23°C)	Pa·s {P}	45 {450}		
CURING AGENT		**TSE345T(B)**	**TSE345T(C)**	**TSE345T(D)**
Features		Standard	For strong reverse taper	For machine mixing
Appearance		Transparent	Transparent	Transparent
Viscosity (23°C)	Pa·s {P}	1.5 {15}	2.0 {20}	1.5 {15}
Mixing ratio	wt %	10	10	10
Work life (25°C)	h	1.5	1.5	2
Demold time (25°C)	h	24	24	24

CURED PROPERTIES* (72h @ 23°C)		**(A)/(B)**	**(A)/(C)**	**(A)/(D)**
Appearance		Translucent	Translucent	Translucent
Density (23°C)	g/cm^3	1.10	1.10	1.10
Hardness (Type A)		41	38	41
Tensile strength	MPa {kgf/cm^2}	6.4 {65}	6.4 {65}	6.4 {65}
Elongation	%	360	400	360
Tear strength (Crescent)	N/mm {kgf/cm}	20 {20}	20 {20}	20 {20}
Linear shrinkage	%	< 0.1	< 0.1	< 0.1

* JIS K 6249

Typical product date values should not be used as specifications.

VISCOSITY CHANGE AFTER MIXING WITH CATALYST



RETARDER ME75

When using curing agent (B) or (C) and longer work life is required, add Me75 retarder. Typical dosage levels of ME75 are shown below.

TEMPERATURE °C	**ME75 DOSAGE LEVEL***
20	< 0.2
30	< 0.5
40	< 1.0
60<	< 2.5

* Weight parts per 100 weight parts of (A)

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 compound (A) and the appropriate amount of curing agent (B), (C) or (D). 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.

- **Curing:** TSE3455T silicone rubber compound will cure sufficiently in 24 hours at 25°C. To achieve faster cure speeds, elevated temperatures may be used.

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

STORAGE

- Store in a cool dry place out of direct sunlight.
- Keep out of the reach of children.

PACKAGING

TSE3455T(A)

- 1kg can available in cases of 10
- 10kg pail available
- 20kg pail available

TSE3455T(B)

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

TSE3455T(C)

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

TSE3455T(D)

- 1kg can available in cases of 10

MOMENTIVE
performance materials

Momentive Performance Materials Japan LLC
http://www.momentive.com

Technical Answer Center (Japan): Phone: +81-276-20-6182 FAX: +81-276-31-6259
Tokyo Head Office: Phone: +81-3-5544-3111 FAX: +81-3-5544-3122