

SILASTIC® T-2 Translucent Base and SILASTIC® T-2/T-2 High Durometer Curing Agent

FEATURES

- Low viscosity for easy mixing and de-airing
- Very fast cure with heat
- High inhibition resistance
- Very low shrinkage
- Medium range durometer hardness
- Two Silastic curing agents: T-2 (standard), and T-2 High durometer
- Translucent/colorless

Translucent high strength silicone moldmaking rubber

APPLICATIONS

- SILASTIC T-2 Silicone Moldmaking rubber is intended for detailed reproduction of surfaces and objects for prototype design and production tooling, as well as artistic and renovation applications.

TYPICAL PROPERTIES

Specification writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales representative prior to writing specifications on this product.

Property	Unit	Value
As supplied - base		
Color		Translucent, colorless
Viscosity	cp/mPa.s	50,000
SILASTIC Curing Agents T-2 or T-2 High Durometer		
Color		Transparent
Viscosity	cp/mPa.s	550
As mixed - 100 parts Base to 10 parts Curing Agent by weight		
Viscosity	cp/mPa.s	55,000
Specific gravity		1.12
As cured with SILASTIC T-2 Curing Agent¹		
Durometer hardness, shore A	points	42
Tensile strength	psi	800
Elongation	%	300
Tear strength, Die B	ppi	120
Linear shrink	%	<0.1
Working time at 23°C (73°F)	minutes	60
As cured with SILASTIC T-2 High Durometer Curing Agent²		
Durometer hardness, shore A	points	47-53
Tensile strength	psi	800-1000
Elongation	%	250
Tear strength, Die B	ppi	130-140
Linear shrink	%	<0.1
Working time at 23°C (73°F)	minutes	60

1. Cure 24 hours at 25°C (77°F).
2. Cure 2 hours at 60°C (140°F).

DESCRIPTION

SILASTIC T-2 Silicone Moldmaking Rubber is a translucent high strength silicone moldmaking rubber. It is a two component material consisting of SILASTIC T-2 Base which when mixed with SILASTIC T-2 or SILASTIC T-2 High Durometer Curing Agent cures at room or elevated temperatures by an addition reaction. It is translucent, allowing molds to be cut without fear of damaging masters, and also allowing pigmentation to meet individual coloration needs.

HOW TO USE

Substrate preparation

The surface of the original should be clean and free of loose material. When correctly mixed with either curing agent, SILASTIC T-2 Moldmaking rubber releases well from most substrates after cure. With porous substrates, a release agent or barrier coat may be needed to seal the surface before casting the silicone. Release coatings such as petroleum jelly or others can be used. Before casting the silicone rubber, it is advisable to verify that no adhesion has occurred between SILASTIC T-2 and the master mold or frame.

Application

Weigh out 100 parts of SILASTIC T-2 Silicone Rubber base with 10 parts of either curing agent in a clean container. Mix until the curing agent is completely dispersed in the base. Mix suitably small quantities to ensure thorough mixing of the base and curing agent and adequate working time.

Entrapped air should be removed in a vacuum chamber, allowing the mixture to completely expand and then collapse. After an additional five minutes, the vacuum can be released. A value increase of four to five times will occur upon vacuum de-airing of the mixture, so a suitably large container should be chosen.

Pour the mixed base and curing agent onto the master, avoiding air entrapment. Some bubbles will remain in the material after the vacuum de-airing – these will rise to the surface and break during the working time. The material should be allowed to stand for about 30 minutes at room temperature before heat curing. The catalyzed mixture will cure in thick sections to a flexible rubber, typically within 12 hours at room temperature, at which time the part can be demolded. Heat will greatly accelerate the cure. There may be some contraction upon cooling due to the coefficient of thermal contraction differences between the silicone rubber and the original. The higher the curing temperature, the greater the differences and dimensions.

Working and Cure times with SILASTIC T-2 Curing Agent

Temperature	Typical working time		Typical time To Cure
	°C	°F	
20	68	180	14 hours
25	77	140	10 hours
30	86	105	7 hours
35	95	65	4 hours
40	104	35	2 hours
50	122	15	45 minutes

Inhibition of Cure

All addition cured silicone elastomers are susceptible to cure inhibition when in contact with certain materials and chemicals. Inhibition has occurred if the elastomer is only partially cured after 24 hours, or has a sticky surface in contact with another material. Amines and sulphur containing materials are strong inhibitors, as are organo tin salts used in condensation cure silicone elastomers. It is strongly recommended that mixing containers, mold construction materials, originals and release agents be checked for any inhibition effect before use. Wet or moist surfaces can cause gas bubbles to form during cure in the silicone adjacent to the substrate surface.

SHIPPING LIMITATIONS

None.

HANDLING PRECAUTIONS

Product safety information required for safe use is not included. Before handling, read product and safety data sheets and container labels for safe use, physical and health hazard information. The material safety data sheet is available on the Dow Corning website at www.dowcorning.com. You can also obtain a copy from your local Dow Corning sales representative or Distributor or by calling your local Dow Corning Global Connection.

USABLE LIFE AND STORAGE

SILASTIC T-2 Silicone Moldmaking Rubber base, and both of its curing agents should be stored at or below room temperature. The materials have a usable life of 12 months from date of production. Refer to product packaging for "Use By" date. Ensure that containers are tightly closed after use.

PACKAGING

SILASTIC T-2 Silicone Moldmaking Rubber Translucent Base is available in 4, 20.4 and 199.5kg containers.

SILASTIC T-2 Silicone Moldmaking Rubber Curing Agent is available in 0.4, 2 and 20.4kg containers.

SILASTIC T-2 Silicone Moldmaking Rubber High Durometer Curing Agent is available in 0.4 and 20.4kg containers.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support Customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, www.dowcorning.com or consult your local Dow Corning representative.

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