

XIAMETER[®] RTV-4232-T2 Base Translucent and XIAMETER[®] T-2/T-2 High Durometer Curing Agent

Translucent high strength silicone moldmaking rubber

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 XIAMETER curing agents: XIAMETER RTV 4232-T2 Curing Agent and XIAMETER RTV 4232-T2 HD Curing Agent
- Translucent/colorless

APPLICATIONS

- XIAMETER[®] RTV-4232-T2 Base Translucent and XIAMETER[®] RTV 4232-T2/XIAMETER[®] RTV 4232-T2 HD Curing Agent 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 XIAMETER[®] sales representative prior to writing specifications on this product.

Property	Unit	Value
As supplied - base		
Color		Translucent, colorless
Viscosity	cp/mPa.s	50,000
XIAMETER[®] T-2/T-2 High Durometer Curing Agent		
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 XIAMETER 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 XIAMETER 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

¹Cure 24 hours at 25°C (77°F).

²Cure 2 hours at 60°C (140°F).

DESCRIPTION

XIAMETER RTV-4232-T2 Base Translucent is a translucent high strength silicone moldmaking rubber. It is a two component material consisting of XIAMETER RTV-4232-T2 Base Translucent which when mixed with XIAMETER T-2/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,

XIAMETER RTV-4232-T2 Base Translucent 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 XIAMETER T-2/T-2 High Durometer Curing Agent and the master mold or frame.

Application

Weigh out 100 parts of XIAMETER RTV-4232-T2 Base Translucent 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 XIAMETER T-2/T-2 High Durometer Curing Agent

Temperature	Typical working time	Typical time
°C	°F	Minutes To Cure
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.

PRODUCT SAFETY INFORMATION

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE

HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL, ENVIRONMENTAL, AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE ON THE XIAMETER WEB SITE AT WWW.XIAMETER.COM.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses. Not intended for human injection. Not intended for food use.

SHIPPING

LIMITATIONS

None.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

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