



TECHNICAL BULLETIN #3093 – INSULCAST MRTV 2 HIGH TEAR MOLD MAKING RTV SILICONE

Revised: 05/2018

PRODUCT DESCRIPTION

INSULCAST MRTV 2 is a high tear strength, high elongation, addition cure mold-making RTV silicone rubber. **MRTV 2** has very low shrinkage on cure. The **MRTV 2** is ideal for detailed reproduction.

PROPERTIES UNCURED

	Part A	Part B	
COLOR, VISUAL	White	Clear	-
VISCOSITY@ 25°C, cps	110000	10000	ASTM D 1084
SPECIFIC GRAVITY	1.15	1.0	-
MIX RATIO (by wt)	100:10		-
MIXED VISCOSITY, cps	90000		ASTM D 1084
SHELF LIFE @ 25°C, months	6		-
POT LIFE (100 gr.) @ 25°C, hours	2		-

PROPERTIES CURED

PHYSICAL		
HARDNESS, DUROMETER (Shore A)	40	ASTM D 2240
TENSILE STRENGTH, psi	700	ASTM D 412
TENSILE ELONGATION, %	400	ASTM D 412
COMPRESSIVE STRENGTH, psi	90	-
TEAR STRENGTH, Die B lb/in	90	ASTM D 624
COEFFICIENT OF THERMAL EXPANSION, °C	42x10 ⁻⁵	-
THERMAL CONDUCTIVITY, BTU-in/(ft ²)(hr)(°F)	2.16	-
THERMAL CONDUCTIVITY, W7m °K	0.311	-
SERVICE TEMPERATURE, °C	-55 to +204	-

ELECTRICAL

DIELECTRIC STRENGTH, volts/mil	500	ASTM D 149
DIELECTRIC CONSTANT, 1 KHz	2.94	ASTM D 150
DISSIPATION FACTOR, 1 KHz	0.0002	ASTM D 150
VOLUME RESISTIVITY, ohm-cm	1.6x10 ⁻¹⁵	ASTM D 257

USE INSTRUCTIONS

1. Pre-mix MRTV 2 base before use to be sure any settled filler is reincorporated.
2. Weigh out amount of base component required for application. Weigh into the base one part of catalyst for each 10 parts of MRTV 2 base.
3. Mix thoroughly, scraping both the bottom and side of the mixing container.
4. Place in a vacuum chamber and draw about 29 in. Hg. The mixture will rise to about 3-4 times its original volume, then collapse. Hold the vacuum for another minute or two and release.
5. Proceed to pour.

CURE SCHEDULE

24 hours @ room temperature (25°C)
 3-4 hours @50°C
 1-2 hours @65°C

STORAGE REQUIREMENTS

This product may settle upon shipment or storage. The product should be re-mixed well prior to use. Store material in a cool dry place.

SPECIAL NOTES

Certain materials may inhibit the cure of MRTV 2 when placed in contact with the mixed, uncured rubber. Materials such as amines and amine cured epoxies, sulfur containing materials and condensation (tin cured) silicones, are some which may cause inhibition. Even surfaces which have been in contact with such materials may cause it. If in doubt, a patch test should be done.

IMPORTANT:

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HEALTH CAUTION:

Avoid breathing possible fumes, mists and vapors which can cause severe respiratory damage. Use of NIOSH approved breathing apparatus is required for more than minimal exposure. Always work in areas with adequate ventilation to allow dissipation of polyamine and other chemical fumes, and where applicable, solvent fumes. Use of goggles, protective garments, rubber gloves, protective cream is required. If material gets into eyes, flush thoroughly with clean water for twenty (20) minutes; then seek medical treatment. Avoid skin contact. Material can cause contact dermatitis. Always wash exposed areas immediately, using warm water and soap, followed by rinsing with clean water. Observe all safety precautions. It is important when using solvent based materials or solvents to keep away from open flame or ignition source.

PLEASE REFER TO MATERIAL SAFETY DATA SHEET FOR FURTHER FIRST AID INFORMATION. FOR CHEMICAL EMERGENCY, CALL CHEMTREC (DAY OR NIGHT) 800 424-9300.

