



# THE COMPLEAT SCULPTOR

90 Vandam Street New York NY 10013

212-243-6074 TCS@SCULPT.com

800-9-SCULPT www.SCULPT.com

## TECHNICAL INFORMATION SHEET - POLY 75 SERIES RTV LIQUID RUBBERS

**Description:** Poly 75 Series rubbers consist of liquid Part A and Part B which after mixing, cure at room temperature to economical, flexible mold rubbers. These products may be considered for casting plasters, cements and waxes. Resins may also be cast with proper release agents. The Poly 75 Series has been formulated for good economy with high performance.

### PHYSICAL PROPERTIES:

	Poly 75-59	Poly 75-60	Poly 75-70	Poly 75-75	Poly 75-80
Mix ratio, by weight	1A to 1B	1A to 1B	1A to 1B	2A to 1B	2A to 1B
Hardness, Shore A	60	60	70	75	80
Pour time	10 min	10 min	40 min	20 min	45 min
Color	Amber	Amber	Gray	Amber	Yellow/Amber
Viscosity, mixed	2,500 cP	1,200 cP	3,000 cP	4,000 cP	5,000 cP
Cubic inches/pound	27	27	27	26	26

**MODEL PREPARATION:** Porous models such as wood or plaster must be sealed then coated with a release agent like Pol-Ease® 2300. Lacquer, paint, PVA, and potters soap on damp plaster work well as sealers. If shellac is used as the sealer, it must be thoroughly coated with release agent as Poly 75 Series rubbers bond tenaciously to shellac. The sealed or non-porous model should then be coated with Pol-Ease® 2300 release agent which should be allowed to dry. In every case where there is any question about the compatibility between the rubber and the prepared model surface, a test cure should be made on an identical surface. Porous models must be vented from beneath to prevent trapped air from forming bubbles in the rubber.

**MIXING AND CURING:** Both Parts A and B tend to absorb atmospheric moisture which spoils the material, so containers should be used up as soon as possible after opening. Poly Purge™ is a heavier-than-air dry gas which can be gently sprayed into open containers of A and B to displace moist air before resealing. Poly Purge™ will help to extend the storage life of the liquid components. Part A should be weighed into a clean metal or plastic container, then the appropriate amount of Part B may be weighed into the same container. Mix thoroughly. We recommend hand mixing with a Poly Paddle to avoid mixing air into the rubber. While mixing, scrape the sides and bottom several times to insure thorough mixing of both components. Pour the rubber as soon as it is thoroughly mixed to obtain best flow and air bubble release. Vacuum degassing will help to provide bubble-free molds, but is usually not necessary. Allow to cure at room temperature, 77oF. Ultimate properties are reached in about seven days, but molds may be used with care after curing for 48 hours. Curing in a warm location accelerates the cure while low temperatures retard the cure. Avoid curing in areas where the temperature is below 60oF. Tools may be cleaned with denatured alcohol before the rubber cures.

**USING THE MOLD:** Usually no release agent is necessary when casting plaster or molten wax in Poly molds. Sponging, dipping or spraying the mold with Pol-Ease® Mold Rinse followed by pouring plaster on the wet mold reduces air bubbles in the plaster and aids release. Pol-Ease® 2300 is an excellent release agent for most resins. Form releases such as Pol-Ease® 2650 and Pol-Ease® 2601 are preferred for concrete casting. Exposure to solvent-type form releases should be kept to a minimum to reduce likelihood of mold distortion due to shrinkage or swelling. Shrinkage may become apparent after repeated casting with resins having strong solvating power or porous casting materials such as plaster or cement which can extract oils from the cured mold. The proper choice of release agent and/or barrier coat can minimize this effect. Poly 75 Series molds will last many years if stored undistorted on a flat surface in a cool, dry location out of direct sunlight. UV resistance of Poly rubbers can be improved by adding Poly UV Additive. At 0.5% of the total weight of the liquid mix, UV Additive reduces the characteristic surface degradation caused by sunlight and other UV sources.

**WARNING:** Uncured Poly compounds may cause skin or respiratory irritation or sensitization if improperly handled. Avoid skin and eye contact with the uncured material. If skin contact occurs, remove with waterless hand cleaner or alcohol then soap and water. In case of eye contamination, flood with water and call a physician. Use only with adequate ventilation. If there is any doubt about adequacy of ventilation, a respirator with air purifying cartridges for organic vapors should be worn when using Part A. Poly elastomers are not to be used where food or prolonged body contact may occur. Read MSDS and container labels prior to use.

Poly 75-59, Poly 75-60, Poly 75-70 = Mix Ratio: 1A to 1B

Poly 75-75, Poly 75-80 = Mix Ratio: 2A to 1B

**Disclaimer:** The information in this bulletin and otherwise provided by the manufacturer is considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data, the results to be obtained by the use thereof, or that any such use will not infringe any patent. The user shall determine the suitability of the product for the intended use and assumes all risk and liability whatsoever in connection therewith.

**STORAGE LIFE:** 12 months from date of shipment in unopened containers.

Technical Support: (212) 367-7561

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