

## Technical Bulletin | **Magikmold® P-500 Silicone Rubber Series**

### DESCRIPTION

Magikmold® P-500 Series is a high-performing line of room-temperature curing (RTV), two-part, platinum-cure silicone rubbers designed for the manufacture of flexible molds.

P-500 molds have excellent release properties and are suitable for casting a number of materials, including urethane plastic and rubber, wax, polyester casting resin, plaster, concrete, epoxy, soap, and some low melt metals.

### PRODUCT OPTIONS | PHYSICAL PROPERTIES

Magikmold® Product	P-508	P-525	P-540T
Type	Platinum-cure (addition-cure)	Platinum-cure (addition-cure)	Platinum-cure (addition-cure)
Mix Ratio by Weight	1 Part Catalyst : 1 Part Base	1 Part Catalyst : 1 Part Base	1 Part Catalyst : 10 Parts Base
Shore Hardness	A8	A25	A35 – A40
Pour Time	20 min.	15 min.	90 min.
Demold Time @ 77°F	3-4 hr.	4 hr.	24 hr.
Cured Color	Translucent	Blue	Translucent
Mixed Viscosity	2,400 cP	3,400 cP	38,000 cP
Specific Volume	26.6 in <sup>3</sup> /lb	24.7 in <sup>3</sup> /lb	26.6 in <sup>3</sup> /lb
Specific Gravity	1.04	1.12	1.04
Tensile Strength	185 psi	485 psi	438 psi
Elongation	781 %	440 %	296 %
Die B Tear Strength	35.4 pli	165 pli	98.6 pli
Die T Tear Strength	11.8 pli	39 pli	32.9 pli

### PREPARE THE ORIGINAL MODEL

Porous models should be sealed to prevent rubber from penetrating the surface. Porous models can be sealed with wax, petroleum jelly, PVA, lacquer or paint. Some surfaces (e.g., metals and glass) that contact the liquid rubber should be sprayed or brushed with a suitable release agent. If there is any question about the release properties of this silicone rubber, perform a small test cure on an identical surface. Liquid silicone rubbers may bond to cured silicone rubbers unless a suitable release agent is applied. Do not use silicone-based release agents on surfaces that contact liquid silicone rubbers since inhibition and/or adhesion may occur.

Affix the model to a suitable baseboard. If the model is porous, vent it from beneath (e.g. drill a hole in the baseboard directly below the model) to allow trapped air to escape.

*NOTE: Depending on the model, it may make more sense to affix the original model to a baseboard prior to applying sealer and /or release agent.*

For poured blocks molds, construct a secure and leak-proof containment area around the model. If the containment area is porous, it must be sealed. Non-porous and properly-sealed materials should be coated with a suitable release agent.

## CURE INHIBITION

Contamination from amines, sulfur, tin compounds, polyester resins, some paints and some silicone rubbers may inhibit surface cure of this product. Perform a test cure on an identical surface to determine that complete curing and good release are obtained.

## MIX & CURE

Before use, be sure that the Catalyst and Base are at room temperature (~73°F) and that all tools are ready. All mixing and curing should be done in room temperature conditions. Read all product labels to determine the correct mix ratio and if the product requires stirring or shaking. Carefully weigh the Base and then the Catalyst in proper ratio into a clean mixing container. Accurate weighing is essential to obtain the optimum physical properties from the cured rubber. Mix thoroughly, scraping sides and bottom of the container.

To ensure a bubble-free mold, it may be necessary to deaerate the liquid rubber under vacuum at 28-29 inches mercury.

Pour the rubber as soon as possible after mixing/vacuuming.

At room temperature (~73°F), this rubber cures to full hardness in the specified demold time. At higher temperatures, they cure faster. At lower temperatures, more time may be needed to reach full hardness.

## THICKENING THE MIX

Add Magikmold® Thixo to mixed Catalyst and Base to thicken the liquid mix to a gel for application by brush or trowel. Add up to 5% of the mixed weight.

## THINNING THE MIX

Add Magikmold® DMF-50 Silicone Thinner/Softener to mixed Catalyst and Base to thin the liquid mix. Can result in loss of strength, hardness and cure speed. Do not add more than 10% of the mixed weight.

## CASTING IN MAGIKMOLD® P-500 MOLDS

Release agent is not necessary for casting most materials into Magikmold® P-500 Series molds, but for longer mold life with epoxy, polyurethane or polyester resins, a barrier coat or release agent (e.g., Stoner E-236 Urethane Mold Release) is recommended.

## ACCESSORIES

Accessories
Magikmold® Thixo Additive
Magikmold® DMF-50 Silicone Thinner/Softener
Mixing Cups
Mixing Sticks

## SHELF LIFE

This product will remain useful for six months from the date of shipment when stored in the original, unopened containers at room temperature (60-90°F).

## **CLEAN UP**

Tools should be wiped clean before the rubber cures. Denatured ethanol is a good cleaning solvent, but it must be handled with extremely caution owing to its flammability and health hazards.

## **SAFETY**

Before use, read products labels and Safety Data Sheets. Follow safety precautions and directions. Avoid contact with eyes and mucous membranes. Best method of cleanup is by wiping with paper towels and washing with waterless hand cleaner, then soap and water.

## **DISCLAIMER**

The information in this bulletin and otherwise provided by Raw Material Suppliers 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. Before using, the user shall determine the suitability of the product for the intended use and user assumes all risk and liability whatsoever in connection therewith.