

# SILPAK RU-430

## Urethane Elastomer RTV

**RU-430 A/B—30 A Shore** is a liquid, two-component, Urethane Elastomer RTV that is easy to process. This system is designed with high elongation properties with good tear resistance and offers excellent library shelf-life. Use for making molds or rubber parts. Molds are used to cast concrete, wax, and plaster parts. **\*\*Use RU-430 C** softening agent to reduce hardness. Part B should be stirred or shaken thoroughly to ensure that any separated material is remixed.

### Features

- Easy to Process with 1 to 1 Mix Ratio
- Low Viscosity for Capturing Detail
- Neutral Color for Custom Coloring
- Good Durometer for Easier Demolding

### Applications

Use for making molds or rubber parts. Molds are used to cast:

- Concrete
- Plaster parts
- Wax

### Physical and Handling Properties

Property	Typical Value
Cured Color	Amber/Varies
Mix Ratio, by weight	1A:1B
Initial Mixed Viscosity, at 77°F, cP	1200
Shore Harness	A30
Pour Time	20 min.
Demold Time at 73°F	16 hrs.
Specific Volume (in <sup>3</sup> /lb)	27.5
Specific Gravity	1.01
Tensile Strength, psi	200
Elongation, %	550
Die C Tear Strength (pli)	50

*Values listed above are typical and not intended for use in specifications.*

### Proper Use and Safety

Read all instructions and safety data sheets prior to use. Consult safety data sheets for all recommended safety precautions.

## Preparation of Master

Urethane RTVs will adhere to most surfaces. A proper mold release must be used on all surfaces—*MR-150* or *ER-2300* is recommended. Wood, plaster, stone, pottery, masonry, or any porous surface must be sealed with lacquer or clear shellac prior to applying release. PartAll Film #10 or shellac is suitable for sulfur & water based clays. Allow 24 hours to dry before preparing master with mold release. Plaster masters can release air when pouring larger molds due to some heat generated. Venting the base of your master by drilling several ¼" holes will release the air downward to avoid air release into mold cavity. Urethane RTV cures to a flexible rubber in above cure times.

## Mixing

**Before adding A to B, urethane B should be stirred or shaken thoroughly to assure that any separated material is remixed.** Select a clean, dry plastic container for mixing. Avoid using wood or paper products, which could cause cure problems. Weigh the proper ratio A to B and mix well, scraping sides and bottom of mixing container to ensure a thorough mix. Avoid whipping in air while mixing. An airless Jiffy Mixer blade works well for large batch mixing.

## Curing

Pour mixture over master slowly allowing material to fill void and push air out of cavity. A vacuum chamber can be used to remove excess air bubbles before pouring, but usually not necessary. After mixture is poured a light mist of *ER-2300* can be sprayed on top surface to break tension bubbles. Urethane RTV will cure to solid rubber at above cure time. Urethane rubber that is colder than 75°F will cure slower. During colder weather material may be heated in a hot water bath (place container in plastic bags first) and the master model should be warmed. Accelerated cures can be reached by heating the mold and material at 100-150°F for 4 to 6 hrs. Cold weather or off-ratio material can produce unacceptable rubber results.

## Using Mold

The use of a release aids demolding and is recommended prior to each casting. Release selection is based on material that is to be cast. **CO-1** is recommended for casting concrete. No release necessary for wax or plaster products. Avoid using solvent-based release agents which can cause mold swelling and distortion.

## Storage & Shelf Life

A and B components must be stored in their original, unopened containers at temperatures between 65F and 85F. Shelf life of materials when kept in unopened sealed containers, at the recommended storage conditions, is 6 months. Containers should not be opened until ready for use. Once containers are opened, material should be used in a short time period. Pre-test any aged material before using. Molds or parts should be cleaned with a soap solution and completely dried prior to storing them in a dry, cool environment. Avoid stacking or exposing them to environmental elements—UV and moisture.

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