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Soft-High Flex Rubber
RU-420 A/B
Product Data Sheet

Product Description and Applications
RU-420 A/B is a two-component, 100% solids Urethane Elastomer RTV developed for its Softness (Low Durometer), High Flexibility and Elongation properties. This softer RTV provides High Stretch and High Tear Resistant properties that can be used for making molds or rubber parts. Molds are used to cast concrete, plaster and wax parts.
Available Sizes: Quart Kit (3 lbs) Gal Kit (12 lbs) 5 Gal Kit (60 lbs)

Unique Characteristics
- High Stretch and Tear Resistance Properties
- Low Viscosity for Improved Detail Definition
- Low Durometer for easier demolding of highly undercut parts

TYPICAL PHYSICAL PROPERTIES

(For Components)	Component A		Component B
Viscosity (cps):	2000		1000
Viscosity Mixed (cps):	*****	800	****
Mix Ratio, by weight:	50		100
Color:	Yellow/Clear		White

(For Cured Material)	Test Method	Results
Shore A Hardness:		20
Tensile Strength (psi):	ASTM D-638	549
Elongation %:	ASTM D-638	847
Tear Resistance (pli):	ASTM D-624	125
Coverage:		27 in^3/lb

REACTIVITY DATA

Gel Time:	20 minutes
De-Mold Time:	16 – 24 hours

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.

Brush On Molds

A material with low sag may be obtained by mixing a powder- ***PE Mini Fibers.*** Various ratios of 5% to 10% can be used to achieve different thickness and flow control. A mold can be made with only four coats applied within an hour, which can be brushed or troweled onto surface. A mold release should be used to separate the mother mold from rubber mold.
**Recommended a DETAIL COAT (Unfilled RTV) be applied first to attain surface detail.

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. MR-100-50 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.

Handling and Safety

Use proper equipment—gloves, glasses and apron when using materials. Avoid direct contact with skin and eyes. If skin contact occurs, clean area with waterless hand cleaner or isopropyl alcohol. For eye contact, flush eye with water for 15 minutes and call physician. Use materials under adequate ventilation. **See MSDS/SDS for further information.*

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