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EXPAND IT! RUX-410 A/B Product Data Sheet

Product Description and Applications

RUX-410 A/B (EXPAND IT) is a two-component, 100% solids urethane rubber that is casted to exact size of part, then, when soaked in water for a few days, can expand up to 100% in size. Continue the enlarging process by remolding the expanded part and recasting with RUX-410 until desired size is achieved. Expand Artistic and Architectural pieces, Toy models, Prototypes, and any 2D or 3Dimensional piece with this custom system.

Available Sizes: Pint Kit (2 lbs), Quart Kit (4 lbs), Gallon Kit (16 lbs), 5 Gallon Kit (80 lbs)

Typical Physical Properties

(For Components)

	Component A	Component B
Viscosity (cps):	2550	1200
Mixed A/B	1900	
Mix Ratio, By Weight:	100	100
Color:	Amber/Clear	Clear
Specific Gravity:	1.07	0.93

(For Cured Material)

	Test Method	Results
Durometer, Shore A:		38
Tensile Strength (psi):	ASTM D-638	1076
Elongation %:	ASTM D-638	300

REACTIVITY DATA

Gel Time:	12 – 15 minutes
De-mold Time:	16 – 24 hours

MIXING, CASTING AND CURING INSTRUCTIONS:

Mix A & B materials by proper weight or volume, taking care not to whip excess air into mixture. If vacuum equipment is available—a quick vacuum, opening and closing exhaust valve will help eliminate entrapped air. Pour material into Silicone **Platinum RTV (R-2000 Series) rubber mold** and demold part in 24hrs. If using a non-silicone RTV mold, use a release agent, **ER-2300 or MR-150**, prior to casting material. Multiple pours may be helpful in reducing entrapped air in mixture. Mix only the amount of material needed over a 10-minute application. Once de-molded, allow piece to fully cure an additional 2 days before soaking---prematurely soaking part will result in part dissolving and deteriorating during enlarging process.

Expanding Process

RUX410 can be soaked in a container of water to begin the growing process. Dimensional distortion may occur during the process, but allow material casting 72 hours or more to expand to proper stable shape, which may take up to a week or so. Keep in mind since part thickness ultimately determines length of soaking time. Avoid casting parts larger than 2" inches thick. Once enlarged, wipe with dry towel and dust with a dry powder (talc). Model is now ready to be molded in a **Tin RTV (R-1000 Series) rubber mold**. De-mold part immediately after mold has cured. Water expanded rubber will shrink back to original size so a mold should be made ASAP. Please contact technical support for further assistance.

STORAGE/SHELF LIFE:

Material should be stored in warm, dry area with lids secured tightly. Once containers are opened, material should be used in a short time period—6months. The A-Component of system is moisture sensitive. We recommend Poly Dry (aerosol purge gas) be applied after each use to avoid contamination. Pre-test any aged material before using.

THE INFORMATION AND DATA CONTAINED HEREIN ARE BASED ON INFORMATION WE BELIEVE RELIABLE. EACH USER OF THE MATERIAL SHOULD THOROUGHLY TEST ANY APPLICATION, AND INDEPENDENTLY CONCLUDE SATISFACTORY PERFORMANCE BEFORE COMMERCIALIZING. SUGGESTIONS OF USES SHOULD NOT BE TAKEN AS INDUCEMENTS, TO INFRINGE ANY PARTICULAR PATENT.