

# Econ<sup>®</sup> 60

## Urethane Rubber



www.smooth-on.com

### PRODUCT OVERVIEW

Econ<sup>®</sup> 60 is an economical and fast curing Shore 60A urethane rubber. It has no odor, features a convenient 1A:1B by volume mix ratio and a low viscosity for easy mixing and pouring.

Working time is about 6 minutes and handling time is 4 hours at room temperature. Translucent clear amber color (light passes through) makes Econ<sup>®</sup> 60 easy to color with SO Strong<sup>®</sup>, UVO<sup>®</sup> or IGNITE<sup>®</sup> colorants.

Econ<sup>®</sup> 60 is used to make **limited run production rubber molds**, stamping pads, rubber prototype parts, rubber props and pour-in-place gaskets for industrial equipment. It is also suitable for coating fabrics.

### PROCESSING RECOMMENDATIONS

#### PREPARATION...

Store and use at room temperature (73°F/23°C). Environmental humidity should be as low as possible. Good ventilation (room size) is essential. This product has a limited shelf life and should be used as soon as possible. Wear safety glasses, long sleeves and rubber gloves to minimize contamination risk.

**Some Materials Must Be Sealed** - To prevent adhesion between the rubber and porous materials (gypsum plasters, concrete, wood, stone, etc.), these surfaces must be sealed prior to applying a release agent. SuperSeal<sup>®</sup> (available from Smooth-On) is a fast drying sealer suitable for sealing porous surfaces without interfering with surface detail. A high quality shellac is suitable for sealing modeling clays that contain sulfur or moisture (water based). Thermoplastics (polystyrene) must also be sealed with shellac or PVA. **In all cases**, the sealing agent should be applied and allowed to completely dry prior to applying a release agent.

#### TECHNICAL OVERVIEW

Mix Ratio: 1A:1B by volume or weight	
Mixed Viscosity (cps): 1400	(ASTM D-2393)
Specific Gravity (g/cc): 1.04	(ASTM D-1475)
Specific Volume (cu. in. /lb.): 26.7	
Pot Life: 6 min. (73°F/23°C)	(ASTM D-2471)
Handling Time: 4 Hours	
Cure time: 16 hrs. (73°F/23°C)	
Color: Translucent Amber	
Shore A Hardness: 60	(ASTM D-2240)
Tensile Strength (psi): 350	(ASTM D-412)
100% Modulus (psi): 82	(ASTM D-412)
Elongation @ Break: 500%	(ASTM D-412)
Die C Tear Strength (pli): 85	(ASTM D-624)
Shrinkage (in./in.): <0.001	(ASTM D-2566)

All values measured after 7 days at 73°F/23°C

**Non-Porous Surfaces** - Metal, glass, hard plastics, sulfur free clays, etc. require only a release agent.

**Applying A Release Agent** - A release agent is necessary to separate rubber from most surfaces. Use a release agent made specifically for mold making (Universal<sup>®</sup> Mold Release available from Smooth-On). A liberal coat of release agent should be applied onto all surfaces that will contact the rubber.

**IMPORTANT:** To ensure thorough coverage, lightly brush the release agent with a soft brush over all surfaces of the model. Follow with a light mist coating and let the release agent dry for 30 minutes.

**Because no two applications are quite the same, a small test application to determine suitability for your project is recommended if performance of this material is in question.**

**MEASURING & MIXING...**

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**Measuring & Mixing** - Liquid urethanes are **moisture sensitive** and will absorb atmospheric moisture. Mixing tools and containers should be clean and made of metal, glass or plastic. Materials should be stored and used in a warm environment (73°F/23°C).

**IMPORTANT: Pre Mix Part B before using.** After dispensing the proper amounts of Parts A and B into mixing container, use a straight edged paddle and mix for two minutes, making sure that you scrape the sides and bottom of the mixing container several times.