



REPRO[®] ULTRA LIGHT

Description

Repro Ultra Light is a very low-density, syntactic polyurethane casting resin designed for weight critical applications and easy machinability. This material, when cured, may be worked with hand tools or CNC machining equipment. A long working time allows for large, accurate castings. The low viscosity of this resin provides for excellent surface reproduction. Repro Ultra Light is also an excellent choice to use as a hardness-matched adhesive for low density tooling boards and urethane foam boards.

Physical Properties

Color (when mixed)	Tan
Mix Ratio (by weight or volume)	1:1
Mixed Viscosity (cps)	1,200
Gel Time (min. @ 72°F.)	10-11
Hardness (Shore D)	55
Compressive Strength ^[1] (psi)	2,700
Flexural Strength ^[2] (psi)	1,840
Flexural Modulus ^[2] (psi)	160,000
Tensile Strength ^[3] (psi)	1,490
Tensile Modulus ^[3] (psi)	72,400
Izod Impact Strength ^[4] (ft-lbs/in)	0.12
Coeff. of Thermal Expansion ^[5] (in/in/°F)	4.18 x 10 ⁻⁵
Specific Gravity	0.59
Linear Shrinkage ^[6] (in./in.*)	0.0014
Vol. Wt. Ratio (cu. in./ lb.)	47
Deflection Temperature ^[7] (@ 66 psi)	128°F
Demold Time (minutes)	120-180

ASTM Tests: [1] -D695, [2] -D790, [3] -D638, [4] -D256, [5] -D696-98, [6] -D2566, [7] -D648

* - Actual shrinkage is dependent upon mass

Ordering Information

Item Number	Description	Net Wt.
053196	Repro Ultra Light Gallon Kit	7 lbs
053200	Repro Ultra Light 5 Gallon Kit	35 lbs

Physical and mechanical properties of tooling plastics herein reported are typical after a full cure of seven (7) days at room temperature or equivalent. Designated mix ratios must be adhered to for desired results.

READ SAFETY DATA SHEETS AND PRODUCT LABELS BEFORE USING PRODUCT

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REPRO USER INFORMATION

The following information, except when specifically noted, is common to the entire line of Repro Fast-Cast Urethanes. A separate instruction sheet is available for using Repro Surface Coat and Laminating Resin System.

Instructions For Use

Materials Needed

- Repro Fast-Cast Urethane A & B Components
- Plastic or Lined Paper Mixing Containers
- Jiffy, Plunge, Hula Girl, or Red Devil Mixer
- Freeman Wax Release, and Partall PVA Mold Release
- Plastic or Rubber Gloves
- Acetone or Alcohol Solvent
- Clean Cloth
- Mixing Paddles or Tongue Depressors

Preparation

- If bonding Repro to a surface, clean and abrade the surface to be bonded.
- If Repro is to be parted from a surface that it is poured against, follow proper sealing and release procedures to prevent bonding.
- Procedures for releasing Repro from metal, wood, plastic, wax, and plaster are available from **Customer Service 800-321-8511** or our website **www.freemansupply.com**.

Mixing and Pouring

- Plastic or rubber gloves **MUST** be worn when working with Repro (read Warning Information)
- Using an appropriate mixer, **THOROUGHLY** mix Parts A and B in their original containers. When using a drill driven mixer, it is preferable to use separate mixers for the A and B components. A single mixer may be used, but it essential to completely clean it with solvent before mixing the other component to avoid contamination.
- By weight or volume pour equal amounts of Part A and Part B into separate clean and dry containers. Replace the lids on both sides of the original Repro containers to prevent contamination.
- Pour the A side into the B side cup and mix well, approximately 30 seconds, using a tongue depressor or paint paddle. Be aware of the Pot Life for the particular Repro formulation that you are using to avoid the premature solidification of the material.
- When mixing is complete pour the liquid into a third container and mix briefly to ensure a complete mix.
- Pour the mixed Repro into your mold cavity. To help avoid air entrapment, hold the container well above the mold surface if possible, and pour in a thin stream.

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Pot Life and Demold Times

Product	Pot Life (Min.)	Demold Time (Min)
Repro Fast	4-5	15-30
Repro 10	5-6	30-60
Repro 83	6-7	60-90
Repro NS - Non Settling	6-7	60-90
Repro One - Non Settling	6-7	60-90
Repro 95 - Aluminum Filled	6-7	60-90
Repro Light	6-8	90-120
Repro Ultra Light	10-11	120-180
Repro Slow	12-14	180-240

**Note: Demold times are greatly affected by poured mass and ambient temp.*

FOR INDUSTRIAL USE ONLY
KEEP OUT OF REACH OF CHILDREN

A-Side contains POLYOL

B-Side contains ISOCYANATE

WARNING

Direct contact may cause eye or skin irritation. Exposure to vapor or liquid might cause respiratory and skin sensitization, as well as eye irritation.

Avoid contact with eyes, skin, and clothing. **DO NOT TAKE INTERNALLY.** Avoid breathing of vapors. Use only with adequate ventilation. Wash thoroughly after handling.

FIRST AID - If inhaled, move person(s) to fresh air. If contact with eyes or skin, flush immediately with water for at least 15 minutes and get medical attention. Wash skin with soap and water. If swallowed seek medical attention immediately.

IN CASE OF FIRE: Extinguish fire with dry chemicals, carbon dioxide, foam, or water spray.

Moisture Sensitivity

IMPORTANT - Because all urethanes are sensitive to moisture, the user must keep Repro container lids closed when not in use. Repeated opening and closing of the container may introduce moisture and negatively affect performance of the product. We recommend that Freeman 302 Urethane Protectant be sprayed into the opened A and B container before resealing the unused material.

IMPORTANT NOTICE TO PURCHASER

Manufacturer/seller shall NOT be liable for any injury, loss, damage arising directly, consequentially from the proper/improper use of product, but shall be obligated to replace quantity of product proved defective for intended application. User shall determine suitability of the product for intended use and assumes all risk and liability whatsoever in connection therewith. The foregoing may not be altered except by express written consent by an officer of manufacturer/seller.