



FAST CAST™ ROTO ONE

Roto One Datasheet

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DESCRIPTION & APPLICATION:

Urethane casting resin for rotational molding & open mold Pours (Improved formula for stronger resin with a slightly extended gel time.) ROTO-ONE is a two-part liquid urethane cast resin in the family of our R1 FAST CAST. This resin is a strong, low viscosity, easy flow, 50/50 by volume resin. Suitable for making large, hollow cast decorative statues or industrial parts in RTV silicone rubber molds. Mix in our fillers to extend the resin, reduce the part weight, improve the dimensional stability, increase density, minimize shrinkage, improve the final product cell structure and make it possible to cast an unlimited thickness in one pour without exothermic cracking.

The casting method should be done on a rotational molding machine at room temperature. For experimenting or small prototypes, casting can be done by hand by pouring the resin into a silicone rubber mold, capping the pour hole and then rotating the mold on all axis to get as even a coverage and resin thickness buildup as is possible. Maximum of 2" thick without fillers in one pour.

Available in 2 quart kits, 2 gallon kits, 10 gallon kits and 55 gallon 2 drum kits.

PHYSICAL PROPERTIES:

SIDE A: EXTENDED PPOLYURETHANE ISOCYANATE

SIDE B: EXTENDED POLYETHER POLYOL

GEL TIME: 4 minutes.

DEMOLD TIME: 15 to 35 minutes depending on gel time, size, thickness and temperature.

VISCOSITY A/B: 50/110 cps

SPECIFIC GRAVITY A/B: A: 1.11 @ 20°C. B: .99 @ 20°C.

MIX RATIO BY VOLUME: 50/50(By weight: A:52.7 B:47.3)

BARCOL HARDNESS/SHORE D: 72

FLEXURAL STRENGTH (D-790): 47600 psi

FLEXURAL MODULUS (D-790): 150,000 psi

TENSILE STRENGTH (D-638): 2600 psi

ULTIMATE ELONGATION (D-638): 15%

TEAR RESISTANCE/DIE-C (D-624): 250 pli

IZOD IMPACT – UNNOTCH. (D-256): 6.5 ft-lbs./in

IZOD IMPACT – NOTCH. (D-256): 0.5 ft-lbs./in

HEAT DISTORTION TEMPERATURE (D-648): @ 66psi 140° F. @ 264 psi 130° F.

COLOR: Off white, light tan.

STORAGE AND HANDLING:

Both A and B components are very stable mixtures. However, we suggest re-mixing the B-component at least once a week. Recommended storage temperature is 70-105° F. Always refer to the safety data sheet prior to handling. If properly stored, the shelf life on this resin is 6 months or more. For industrial use, only. Use proper ventilation. This resin system cures at room temperature (77° F), however the mold may be preheated to 100° to 120° F specifically if the final part consists of thin sections.

SAFETY PRECAUTIONS:

Use in a well-ventilated area. Avoid contact with skin using protective gloves and protective clothing. Repeated or prolonged contact on the skin may cause an allergic reaction. Eye protection is extremely important. Always use approved safety glasses or goggles when handling this product.

IF CONTACT OCCURS:

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. It is *not* recommended to remove resin from skin with solvents. Solvents only increase contact and dry skin. Seek qualified medical attention if allergic reactions occur.

Eyes: Immediately flush with water for at least 15 minutes. Call a physician.

Ingestion: If swallowed, call a physician immediately. Remove stomach contents by gastric suction or induce vomiting only as directed by medical personnel. Never give anything by mouth to an unconscious person.

Questions? Please contact Goldenwest Manufacturing, Inc.

(530) 272-1133 or email sales@goldenwestmfg.com

www.goldenwestmfg.com

WARRANTY: All recommendations for product use have been derived from experience and test data believed to be reliable. We warrant and guarantee the uniformity of our products within manufacturing tolerance. However, since the use of our products is beyond our direct control, they are furnished upon the condition that each party shall make his/her own tests to determine their suitability for his/her particular purpose. Except as stated herein, Goldenwest Manufacturing Inc. makes no warranty or guarantee, expressed or implied, and disclaims all responsibility for results obtained, nor assumes any liability for any damages, whether arising out of negligence or breach of guarantee and is hereby expressly limited to replacement of product only. For additional information on product handling, please refer to Roto-One MSDS.