



# ***FAST CAST™ TUFF CAST***

## **Tuff Cast Datasheet**

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### **DESCRIPTION & APPLICATION:**

Tuff Cast is a rigid, very strong, hard urethane casting resin for making small to medium size decorative or industrial parts. Common uses are creating replacement parts made from other thermoset or a thermoplastic sheet where they can be reproduced as castings rather than having to machine out each individual part. Other uses are bowling ball plugs, refrigerator magnets, low voltage electrical casings, holding fixtures, prototype gears, etc.

Tuff Cast is a two-part liquid urethane cast resin in the family of our ***RI FAST CAST***.

This resin is a strong, low viscosity, easy flow, 50/50 by volume resin. Tuff Cast is a fast, hot resin that is best mixed and dispensed using automated equipment rather than by hand, but in small quantities and sizes, it can be mixed by hand by using a Jiffy Mixer in an electric drill.

This resin is very moisture sensitive, we recommend adding Molecular Sieves to 'B' side just prior to casting. Limit the thickness to under 3" if 100% resin. Thicker parts can be cast if you use equal amounts of M15 FILLER or HG3000 FILLER. Pre-stir each side once before using. As with most resins, if the temperature drops below 65° F. the resin properties may separate, heat the resin to 75° F. and stir before using. Do not store materials on a cold cement floor, place containers on a pallet or another insulated base.

Store above 70° F. and stir the 'B' side on the first use and once weekly. Moisture sensitive. For industrial use, only. Read the *Material Safety Data Sheet* and all labels prior to using. Keep out of the reach of children. Not recommended for use in the home. Tuff Cast is made in the USA.

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

A liquid patch repair kit of the same resin is available to change or repair this material making sanding the bond line a snap.

### **PHYSICAL PROPERTIES:**

**SIDE A:** EXTENDED PPOLYURETHANE ISOCYANATE

**SIDE B:** EXTENDED POLYETHER POLYOL

**GEL TIME:** 1 to 1.5 minutes @ 75° F. (Do NOT heat the RTV rubber mold)

**DEMOLD TIME:** 5 to 7 minutes depending on gel time, size, thickness and temperature.

**VISCOSITY A/B:** A: 125 B: 125

**SPECIFIC GRAVITY A/B:** A: @ 20°C. B: @ 20°C.

**MIX RATIO BY VOLUME:** 50/50(By weight: A:53.8 B:46.2)

**MIX TIME:** 15 to 25 seconds

**BARCOL HARDNESS/SHORE D:** 72

**FLEXURAL STRENGTH (D-790):** psi

**FLEXURAL MODULUS (D-790):** psi

**TENSILE STRENGTH (D-638):** 3200 psi

**ULTIMATE ELONGATION (D-638):** 5%

**TEAR RESISTANCE/DIE-C (D-624):** psi

**HEAT DISTORTION TEMPERATURE (D-648):**

**EXOTHERM CAN REACH:** 250° F.

**COLOR:** pure white

**Questions? Please contact Goldenwest Manufacturing, Inc.**

**(530) 272-1133 or email [sales@goldenwestmfg.com](mailto:sales@goldenwestmfg.com)**

**[www.goldenwestmfg.com](http://www.goldenwestmfg.com)**

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