

VFI®-3070 70 A POLYURETHANE CASTING RUBBER

VFI-3070 70 A Polyurethane Casting Rubber is a fast-setting urethane rubber that can be injected or poured into molds to make repeatable parts and castings. Its 1:1 mix ratio provides easy processing, while its fast gel time allows for quick demolding of parts. With excellent physical properties, you can create many different high-end castings that offer high durability and impact resistance. VFI-3070 works well in urethane, platinum silicone, or metal molds and can produce parts of varying sizes that maintain final properties.

- Superior physical properties for industrial part making and prototyping
- Room temperature cure with no need for post curing
- Highly durable urethane rubber with great rebound and versatility
- Economical alternative to high amine-based rubbers
- Fast setting with quick demold times for increased part production

PHYSICAL PROPERTIES	TEST METHOD	TEST RESULTS
Hardness Shore A	ASTM D2240	72
Tensile Strength	ASTM D412	1,350 psi
Elongation	ASTM D412	650%
Tear Strength	ASTM D624	165 pli

LIQUID PROPERTIES	TEST METHOD	TEST RESULTS
Mixed Solids by Volume	ASTM D2697	100%
Mixed Liquid Density	ASTM D2939	9.34 lbs/gal
Specific Gravity A Side	N/A	1.09 g/mL
Specific Gravity B Side	N/A	1.07 g/mL
Mixed Specific Gravity	N/A	1.08 g/mL
Ratio by Volume (A:B)	N/A	1A:1B
Viscosity A Side	ASTM D2196	1,100 cps
Viscosity B Side	ASTM D2196	1,400 cps
Pot Life	N/A	90 sec
Gel Time	N/A	140 sec
Tack Free	N/A	5 min
Demold Time	N/A	10 min
VOC	N/A	0

MANUFACTURER OF HIGH PERFORMANCE POLYMERS

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THICKNESS REQUIREMENTS

VFI recommends pouring at a minimum of ¼ of an inch thick in non-heated molds.

MOLD PREPARATION

Clean the surface of any oils, dirt, debris, or other contaminants. Ensure all surfaces in contact with VFI-3070 are sealed and coated with a release agent to prevent unwanted adhesion when demolding. A release agent is required to protect and extend the life of the mold. Compatible molds for casting VFI-3070 include urethane, metal, and platinum silicone when properly prepared.

MIXING

As a two-component material, the B side (Poly) must be premixed until uniform before combining it with the A side (Iso). With a short work time, the recommended application is to inject the material, but small amounts can be hand poured if done quickly. If you are not injecting, the B side must be poured into the A side and mixed thoroughly with a power mixer until uniform. The material must be fully mixed and used before the duration of the pot life.

POST-CURE

Allow the material to cure for a minimum of 10 minutes at room temperature before demolding. Full physical properties can be achieved after 3 days at room temperature. Post-curing the material at 150°F for 2 hours will allow you to obtain full properties sooner. Thin pours may require a longer cure time to be able to demold.

STORAGE/SHELF LIFE

Store between 60°F - 90°F in a clean, dry building. The shelf life of unopened containers is 12 months after the date of manufacture. Once open, use it immediately. If you plan on storing after opening the containers, both sides must be nitrogen purged.

PRECAUTIONS

VFI-3070 is not UV color stable and has no long-term UV testing. The A side contains isocyanate, which can be irritating to the skin and toxic if inhaled as particulate matter. Avoid prolonged breathing of vapors and repeated skin contact. Use only with adequate ventilation. Do not thin or add foreign material to the product. See Safety Data Sheet for complete safety instructions.