



#### SNAPSHOT:

**Preferred Volume:** 1 to 1,000 units

**Prices Beginning at:** \$15

**Single Tool Production:** 1-2 parts per day

#### AT A GLANCE:

Composite, elastomer and urethane processes produce the exact reproductions demanded by prototype and specialty part development. Our most cost effective way to produce prototype or custom parts with more flexibility of part design parameters.

#### DUROMETER RANGE:

10 Shore A – 80 Shore D

#### PERFECT FOR:

Biology Dissection Models, Bumpers & Rollers, Electronic Device Cases, Gun Stocks & Steering Wheels

#### NOTABLE CUSTOMERS:

Cosworth, Playworld Systems, Ward's Natural Science

# Cast Composites, Elastomers & Urethanes



## ATTRIBUTES



ABRASION & TEAR RESISTANCE



DESIGN VERSATILITY



IMPACT ABSORPTION



TEMPERATURE RESISTANCE

## Creative Strategy

### SIZE & COMPLEXITY

- Elastomers & Urethanes: Minimum 1 gram – maximum 50+ lbs.
- Composites: Minimum 1 gram – maximum 10 lbs.
- Considerations: charge port location, hardware, parting lines and over-molded substrates

### MATERIALS

- Solid urethanes, elastomers and composites with a variety of physical properties
- Considerations: absorption, color, deformation, flexibility & rigidity, service temperature, surface detail, and weight

**COLOR CHART:** *view online at [www.rsalberts.com](http://www.rsalberts.com)*

### DRAFT

Amount of taper for molded or cast parts perpendicular to the parting line. An angle is incorporated into a wall of a mold so that the opening of the cavity is wider than its base. Draft angles allow for easier ejection of the part from the mold.

- Composites: 1° draft preferred minimum
- Elastomers: 0° draft acceptable in some cases, 1° draft preferred minimum
- Urethanes: 0° draft acceptable in some cases, 1° draft preferred minimum

### SURFACE FINISH

Dents or markings distort the plane of a surface, causing light to reflect in a way that our eyes instantly identify as an inconsistency. Added texture aids in concealing blemishes and creates a friction factor on the surface of finished parts providing anti-slip qualities.

- Urethanes: Ranging from smooth to heavy pebble
- Elastomers & Composites: Ranging from smooth to light pebble
- Custom surface finish available at additional cost

### TOLERANCES

Allowable variation for any given size in order to achieve proper function when considering the design intent. As with all molded products, part material's shrink value should be considered when building your pattern and mold.

- Composites:  $\pm 0.10$ "
- Elastomers:  $\pm 0.030$ "
- Urethanes:  $\pm 0.015$ "



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