

Life: Up to 1,000+ production parts

Prices Beginning at: \$500

# AT A GLANCE:

Patterns are first created using 3D data, drawings or physical samples. After pattern approval, parting lines are constructed if necessary, and mold walls are built. A blended resin is poured over each half of the pattern and allowed to cure, creating the desired part cavity with an identical mirror image of the pattern.

### PERFECT FOR:

Composites, Elastomers, Silicone, Urethanes

# **NOTABLE CUSTOMERS:**

CAE, University of Central Florida, Ward's Natural Science



RALPH S. ALBERTS COMPANY INCORPORATED

60 Choate Circle Montoursville, PA 17754 Phone: (570) 368-MOLD (6653) Fax: (570) 368-6353 rsalberts.com

# Cast Epoxy, Silicone & Urethane Tooling

# Process Experts With More Than 200 Years Experience

# **ATTRIBUTES**









DESIGN VERSATILITY

LIGHT WEIGHT

LOW COST

RAPID PRODUCTION

# **Creative Strategy**

# **SIZE & COMPLEXITY**

- Maximum Epoxy, Silicone and Urethane molds are 18" x 18" x 12". Molds can be constructed as single or multiple cavity.
- Considerations: charge port location, hardware, parting lines and substrates

# **MOLDED MATERIALS**

• Composites, Concrete, Epoxy, Foams, Plaster, Polyester, Silicone, Urethanes, Vinyl Ester

COLOR CHART: view online at 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.

- Epoxy: 1° draft required minimum
- Silicone: 0° draft acceptable in some cases, 1° draft preferred minimum
- Urethane: 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.

- · Ranging from smooth to heavy 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.

Epoxy: ±.030"

• Silicone: ±.010"

• Urethane: ±.010"