

# Custom C Masking



## **Trusted Supplier for More Than 65 Years**

For more than 65 years, Caplugs has been a leader in product protection and masking.

We are committed to providing our customers with the most options in the industry. Caplugs has dedicated resources and an infrastructure to support a comprehensive catalog offering of 12,000+ parts, as well as a team of engineers dedicated to custom designs. Our custom process enables us to develop unique solutions more quickly and economically than anyone in the industry.

As a global leader we have the facilities, molding capabilities, engineering resources, quality certifications and processes to meet your needs. Our world-class sales and service team will collaborate with customers every step of the way to develop custom parts that fit exact requirements. Caplugs is the trusted source for all of your product protection, masking and molded component needs.

Injection Moldina Vinyl Dip Molding Extrusion **rocess** Vinyl Coating Rubber Molding Compression • Transfer **Die-Cuttina** 

## **Finishing Processes**

Trust Caplugs for masking solutions designed specifically for a wide range of finishing processes across a breadth of markets.



## Solutions to Unique Challenges

We have designed and tested parts to solve the industry's most common challenges, including:

- Inconsistent protection
- Adhesive residue
- Leakage
- Bleeding
- High labor costs
- Durability

# Unmatched Service and Support

- Responsiveness to match your fastpaced business needs
- Expert technical representatives
- Global coverage with localized service
- Free samples and easy online ordering
- Request a complimentary Masking Process Efficiency Analysis to identify areas of potential savings in your masking process

## why choose custom?



## **1. Discovery Process**

A dedicated sales engineer will work with you one-on-one to identify and understand your application, environment and process challenges.

## 2. Concept/Design

Our team of design engineers concept solution options by taking into consideration the best material, functionality, installation, removal, part lead time and desired price point.

## 3. Prototype

Our engineers can provide a SolidWorks rendering, 2-D sample or 3-D prototype.

## 4. In-House Tool Fabrication

Comprehensive in-house molding capabilities and complete film conversion process ensure efficient lead times and product quality.

## 5. Full Production Capability

Five different molding processes spanning six different facilities enable full scalability to meet your needs from hundreds of parts to millions of parts.

Need a unique shape? Size? Color? Material? Process requirements? We can help.

## custom molded rubber masks

Rubber masks offer a more durable, multi-use option with time and cost-saving benefits:

- Engineered to speed up production times with easy installation and removal
- Resistant material for multiple uses
- Performance masks designed for complex masking surfaces

## **Compound Mixing and Development**

All materials for rubber components are formulated and mixed in-house, ensuring a controlled process for consistency and performance. We can also develop custom compounds, as needed, to meet specific performance requirements.

A team of in-house chemists perform:

- Materials inspection and analysis
- Compound physical property and life testing
- Performance simulation testing
- Processibility and repeatability testing
- MDR, SG, hardness, tensile and elongation tests on every batch

Additional tests are performed based on your needs and our internal control plan such as, heat aging, compression set, ozone resistance, low temperature, brittleness, staining, etc.



## designed for unique applications

## **Custom Molded Masks**

#### Paintball gun mask

Material: EPDM Finishing process: Powder coating Quantity: 2,500



Air valve mask

Material: Ultrabake™ Finishing process: Powder coating Quantity: 50



#### Sprocket pulley mask

Material: Ultrabake™ Finishing process: Chrome plating Quantity: 300



#### 10-stud axle mask

Material: EPDM Finishing process: Wet paint Quantity: 5,000



## custom die-cutting capabilities

Extremely effective when masking a flat surface, **custom die-cuts** are **quick and easy** to apply and remove, and they can even be fitted with **pull tabs** to expedite the removal process. This solution is ideal for **wet paint, powder coating, e-coating and plating operations**. Custom die-cuts are also an **economical** way to eliminate tedious manual masking steps, saving significant labor costs.

Caplugs offers four unique die-cutting processes to produce a wide range of solutions for product protection and masking purposes.

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- Plotter
- Steel rule die-press
- Rotary die-cutter
- Magnetic plate die-cutting

## Additional options:

- Die-cut kits
- Perforated liner
- Slit back liner
- Carrier tape
- Pull tabs

Prototypes in 24 hours

**Custom** die-cut designs from a simple sketch or drawing

Hold **tolerances** of ± 0.002" on a 24" length

Masks supplied in rolls, sheets or **pre-assembled** kits

Capacity for full **in-house** custom converting

Custom die-cut **samples** 

## die-cuts for any application

## **Custom Die-Cuts**

#### Bezel Mask for Electronics Component

Material: 3 mil polyester tape

Finishing process: Plating

Quantity: 15,000



Material: 2 mil polyester tape Finishing process: Powder coating Quantity: 2,500



## **Circuit Board Mask**

Material: Crepe paper tape Finishing process: Solvent application Quantity: 2,000

## Donut Mask for Aerospace Component

Material: Lead foil tape

Finishing process: Plating

Quantity: 800

## **Die-Cut Assembly Kits**

Inline masking often requires the user to mask several different areas of a component. To streamline this process, we can create multiple different die-cut shapes within one kit sheet.



## masking solutions for every industry



#### **Electrical housing mask**

- Material: Silicone
- Application: Powder coating
- Design Features: Five different parts packaged in one bag as an installation kit. Providing all five parts in a bagged kit reduces human error as all parts in the bag must be applied. This solution further streamlines your purchasing process and simplifies your stocking process.
- **Savings:** Masking labor per component was reduced from five minutes to 30 seconds.
- Quantity: 1,000

#### LED housing mask

- Material: PC21-SH Series in a thicker PC23-SH material
- Application: Powder coating
- **Design Features:** Die-cut to meet exact specifications with thicker material that doesn't tear during handling.
- Savings: Labor savings from tedious hand-taping installation, as well as an excess of tape used.
- Quantity: 15,000





#### **Connector pin mask**

- Material: EPDM
- Application: Wet epoxy coating
- **Design Features:** Cap designed with flange for easy installation and removal. Resilient material makes it reusable.
- **Savings:** Significant labor savings from the application of tape to a single, easy-to-install cap.
- Quantity: !

## Masking cap for circuit board

- Material: Silicone
- Application: Epoxy coating
- **Design Features:** Designed to protect these delicate pins without bending or impacting them in any way.
- Savings: This mask reduced the number of damaged components as a result of insufficient masking using other methods.
- Quantity: 500





## Ultrabake<sup>™</sup> silicone plug for cylinder bore in piston engine

- Application: Component goes through a high-pressure wash and powder coating
- **Design Features:** Installed on a fast moving conveyor line, these plugs need an ergonomic design that enables quick installation and removal.
- **Savings:** Reduced scrap parts and rework due to paint in the bores. Sizable cost savings over die-cut parts that had been used as these are reusable. Reduction of labor force required to run the products.
- Quantity: 8,000

## custom solutions, consistent results



## Large Ultrabake<sup>™</sup> silicone surface mask for trailing arms on snowmobile

- Application: Powder coating
- **Design Features:** Large mating surface requires protection on both left and right side. Using tape was too tedious, raising labor cost and often resulted in failures. This custom solution uses the holes to align it and can be flipped to mask both sides with one mask.
- **Savings:** Reduction of parts required as one mask fits both sides. Consistent masking alignment and seal reduces failures and quality issues on final assembly.
- Quantity: 2,000

#### Custom EPDM cap for stub shaft

- Application: Wet paint
- **Design Features:** Cap must keep teeth and shaft free of paint and stay on the component as shipping protection after the finishing process.
- Savings: Eliminates the need for two separate caps by combining masking and protection into one. Eliminates scrap and rework of expensive drivetrain component.
- Quantity: 3,000





## Front axle magnetic steel and silicone mask assembly

- Application: Powder coating
- **Design Features:** Used to mask concentric diameters on front and back of the frame for a front axle. The mask is made up of four separate pieces two rubber components, a machined center pin and a magnetic donut. These are then assembled and shipped to you as a unit.
- Savings: Dramatic reduction of masking time due to quick installation and consistent alignment of the two diameters required to be free of paint.
- Quantity: 500

# Custom Ultrabake™ silicone mask for bus bars

- Application: High-temperature epoxy coating
- **Design Features:** Installed to cover the mounting ends of large bus bars used in power systems. There is a hole in the mask to allow for hanging of the parts and a custom hook is used to help seal the edges.
- **Savings:** The previous method of masking was labor-intensive with an often inconsistent application of aluminum tape. These parts are also reusable for additional cost savings.



Over **400,000,000** parts in stock. 10,000,000 parts produced per day. Over **12,000** standard parts. Over **200** molding machines. Over 15 engineers. 6 manufacturing facilities. The partner you need.



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