

CUSTOM URETHANE PARTS/PRODUCTS: WHAT TO TELL YOUR SUPPLIER Part 2

In the custom part/product design and formulation process it is important to communicate critical background and functionality information upfront to your supplier. This enables the supplier to formulate the ideal urethane part/product based on your specific needs for tolerance, durability and more, and do so cost-effectively.

Additional Critical Product Information for Optimal Design

There are many questions your supplier will have for you when beginning the custom quote process. Crucial custom formulation discussion topics range from previous product history and customer concerns to functionality-specific questions like descriptions of use, critical properties and environment. In Part 1 of this series, we covered two of the five critical areas to discuss with your urethane supplier in the custom formulation design process including part/product history and customer concerns. In Part 2, we cover three additional critical areas necessary to discuss with your supplier in order to achieve an optimal product/part design:

3. Function of Part:

- **Use of part and other functionality:**

By letting your supplier know how the part will be used upfront, your supplier can review different material options and discuss the ways to maximize your product's performance. In addition to how it will be used, be sure to discuss other functional aspects including load, speed, how many hours per day it will run, and at what cycles (continuous or intermittent).

- **Method of failure/expected life:**

Discussing the part's method of failure and life expectancy with your custom urethane provider is a great way for them to determine what formulation will provide the best product. Since advances in materials, designs and processing technologies will be taken into account when building your part/product, providing your supplier with this information upfront will allow them to design a custom urethane product/part that will function with optimal performance in your application.

4. Critical Properties:

- **What critical properties will your new part/product need?**

Be specific when describing critical properties that your product will need. This will let the future supplier know what they need to do to provide the best performing

product possible. Examples of critical properties include:

- Durometer (hardness)
- Dimensional Tolerances
- No Mold release
- FDA Dry application
- FDA Wet application
- Load Bearing
- Resilience
- Abrasion

5. Environment:

- **What comes in contact with the part and what is the exposure time?**

Environmental elements such as heat, ozone, acids, petrochemicals, UV light and water can have effects on the function of your part/product. Communicating the type of environment your part will be used in along with exposure time will give your supplier a good idea of what they can do to achieve maximum results in your part/product.

Choosing a Supplier

Turning to experts in urethane formulation for strategic guidance will ensure that all the right questions are covered and that your answers are incorporated correctly into a custom formulation for your product. Experienced custom urethane suppliers will work with you to create the strongest, toughest and most durable custom urethane part/product to meet your application needs using the most cost-effective formulation to achieve your goals.



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About PSI Urethanes

PSI Urethanes has 45 years of experience as a market leader and innovator in custom molded urethane. With a long history of outstanding quality, superior product performance and excellent customer service, PSI is a trusted provider of custom molded urethane parts, ranging from low quantity prototypes to full production products. Backed by a highly experienced engineering staff, PSI provides creative solutions with product design assistance, offers a vast array of specialty formulated compounds and delivers top quality parts designed to provide the best overall performance and longest lifespan. Learn more, visit www.psiurethanes.com