



## Cast Silicone Materials

We can convert your CAD files into 3D objects, dimensionally accurate in multiples very fast, using the cast urethane method. There is wide range of material options available, from soft elastomeric Shore A materials to rigid, fire retardant Shore D materials.

Tolerances: Typical mold can yield from 10-20 parts before breakdown of the rubber mold material. The rubber molds are as accurate as the rapid prototyping models ( $\pm 0.005 - 0.010$ " on critical to function features; however, tolerances of  $\pm 0.002$ " have been achieved.

### Shore A Flexible

Materials for silicone are available in various durometers and colors, including medical grade. Flexible silicones have wider working temperatures, increased tear resistance, and compatibility with sterilization processes.

<b>Product:</b>	PE – 44
<b>Shore A Hardness:</b>	$\pm 4$
<b>A:B Mix Ratio by weight:</b>	100/10
<b>By volume:</b>	100/10.9
<b>Mixed Viscosity:</b>	50,000-60,000
<b>Specific Gravity:</b>	1.09
<b>Elongation % (ASTM D412):</b>	$250 \pm 25\%$
<b>Shrinkage:</b>	Nil
<b>Color:</b>	Translucent-Base/Activators Clear
<b>Tensile Strength psi (ASTMD412):</b>	$600 \pm 50$ psi
<b>Tear Resistance ppi (ASTM D624):</b>	$120 \pm 20$ ppi
<b>Applications:</b>	Includes: bellows, gaskets, keypads, membranes, and over-molds

**Disclaimer: All material property data and tolerance specifications reflect typical values and should be viewed only as a guide. Actual values will vary by specific material composition and conditions. All tolerance specifications reflect the approximate range of a process's capabilities and should be viewed only as a guide. Actual capabilities are dependent upon manufacturing, equipment, material, and part requirements.**