

## SILICONE (VMQ)

<p>Silicone is a semi-organic elastomer with outstanding resistance to extremes of temperature with corresponding resistance to compression set and retention of flexibility. Silicone elastomers provide excellent resistance to ozone, oxygen, and moisture.</p> <p>Low physical strength and abrasion resistance combined with high friction properties limit silicone to static seal applications. Silicone utilizes a flexible siloxane backbone rather than a carbon backbone like many other elastomers and has very low glass transition temperatures.</p>	<b>Temperature Range (dry heat)</b>	
	low	high
	-75 °F -59 °C	450 °F 232 °C
	<b>Application Advantages</b>	
	<ul style="list-style-type: none"> <li>» excellent extreme temperature properties</li> <li>» excellent compression set resistance</li> <li>» very clean, low odor and taste</li> </ul>	
<b>Primary Uses</b>	<b>Application Disadvantages</b>	
<p>O-rings, rubber seals and custom molded rubber components for:</p> <ul style="list-style-type: none"> <li>» seals (static) for extreme temperature applications</li> <li>» food applications</li> <li>» medical devices</li> <li>» FDA applications</li> </ul>	<ul style="list-style-type: none"> <li>» typically not good for dynamic seals due to friction properties and poor abrasion resistance</li> </ul>	