

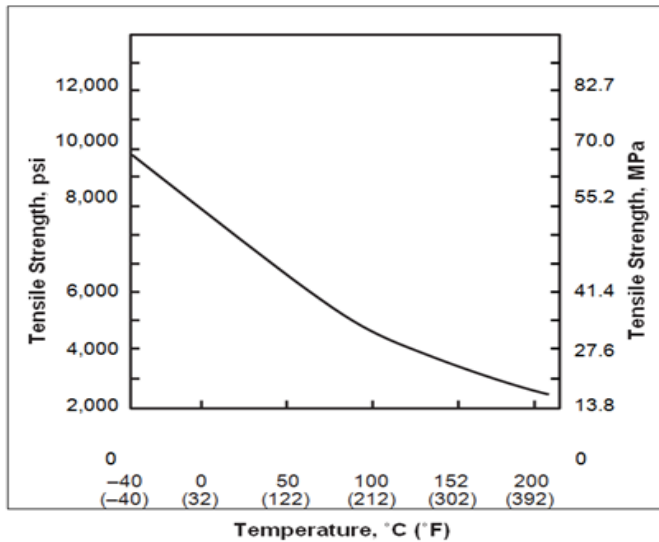
## Teftek®/Silicone Ultraseal™ Temperature Performance.

Teftek® is a Coating Center trade-name for a modified copolymer of tetrafluoroethylene (TFE) and another polymer resulting in an encapsulation material, which is resistant to virtually all chemicals and has far superior tensile strength, abrasion and creep resistance than PTFE, FEP or PFA. The temperature range of Teftek/Silicone Ultraseal is -60°C to +160°C. The lower temperature limit of -60°C is determined by the Silicone core. Teftek will only start showing signs of low temperature embrittlement at -100°C.

### Tensile Strength vs. Temperature

The Graph below shows the effect of temperature on Tensile Strength.

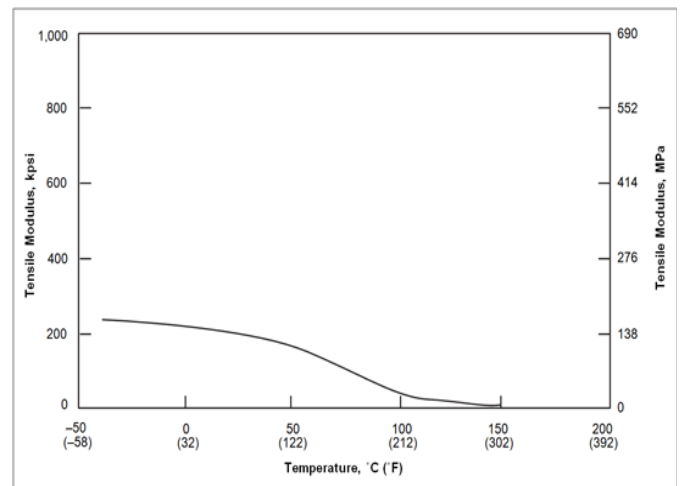
Test conducted on the following material sample  
5" (125 mm) X 0.5" (12.7 mm) X 0.125" (3.175 mm) Injection  
Teftek Moulded Bar.



### Tensile Modulus vs. Temperature

The graph below shows the effect of temperature on tensile modulus

Test conducted on the following material sample  
5" (125 mm) X 0.5" (12.7 mm) X 0.125" (3.175 mm) Injection  
Teftek Moulded Bar.

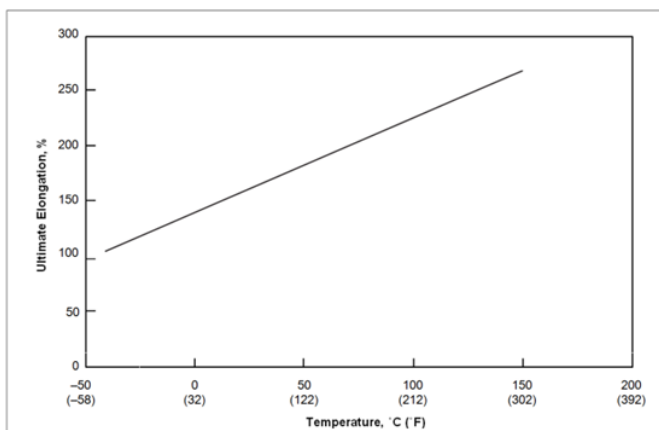


### Ultimate Elongation vs. Temperature

The Graph below shows the effect of temperature on ultimate elongation.

Test conducted on the following material sample  
5" (125 mm) X 0.5" (12.7 mm) X 0.125" (3.175 mm) Injection  
Teftek Moulded Bar.

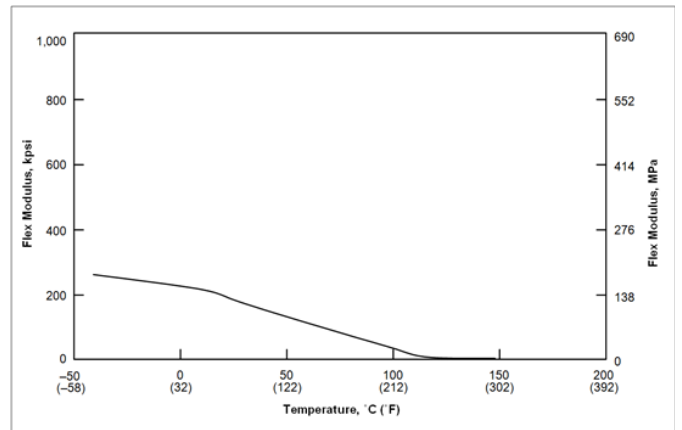
Note: Thinner test sample with result in slightly higher values, thicker samples, lower values.



### Flex Modulus vs. Temperature

The graph below shows the effect of temperature on flex modulus

Test conducted on the following material sample  
5" (125 mm) X 0.5" (12.7 mm) X 0.125" (3.175 mm) Injection  
Teftek Moulded Bar.



### **Temperature on Izod Impact Strength of Teftek**

The graph below shows the effect of temperature on Izod impact strength

Test Temperature	Notched Izod Impact Strength	
	J/m	ft•lb/in
<b>Teftek 200</b>		
<b>-60°C (-76°F)</b>	No break	No break
<b>23°C (73°F)</b>	No break	No break
<b>121°C (250°F)</b>	No break	No break
<b>204°C (400°F)</b>	No break	No break

### **Weather Resistance**

Teftek has excellent resistance to outdoor weathering. Long-term outdoor exposures show little detrimental effects.

### **Hydrolytic Stability and Water**

Absorption

Hydrolytic stability is indicated by lack of deterioration in physical properties after long periods of exposure to boiling water.

Using room temperature tensile strength and elongation as control properties, Teftek is essentially unaffected after 3,000 hours exposure to boiling water.

### **FDA Food Contact Compliance**

Teftek is FDA compliant, meeting requirements of 21 CFR 177.1500 for repeated food contact use, up to 120°C / (250°F)