

# VA179-70

Extreme High Temperature FKM



## Industry leading high temperature FKM:

For decades, sealing applications with temperatures greater than 200°C continuous, was a very expensive proposition requiring either FFKM rubber or metal seals. Parker's FKM technology breakthrough compound, VA179-70, increases the FKM continuous high temperature limit another 20°C to fix long term compression set issues for customers using traditional FKMs, silicones or AFLAS® compounds. VA179-70 maintains the low temperature sealing and chemical resistance consistent with standard FKMs, but increases high temperature limits.

The application potential for this new technology is wide ranging, from automotive to general industrial to oil & gas. Contact Parker OES Applications Engineering to discuss how the VA179-70 can work for you.



## Contact Information:

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## Product Features:

- -15 to 437°F (-26 to 225°C) temperature range
- 527°F (275°C) excursions
- Oil and hydraulic fluid resistant
- Compatible with diesel, biodiesel, and flex fuels
- Drastic improvement in compression set at 225°C over traditional FKMs
- Use in applications such as turbochargers and jet turbines
- Available in custom shapes



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<b>Tested to ASTM D2000 M4K707 A1-11 B38 EF31 Z1 Z2 Z3</b>		
<b>Original Physical Properties</b>	Spec Limits	VA179
Hardness, Shore A, pts, ASTM D2240	70 ± 5	73
Tensile Strength, MPa, ASTM D412	10	11
Ultimate Elongation, % Z1, ASTM D412	150	236
<b>Compression Set, ASTM D395 Method B</b>		
22 hrs. @ 175°C, basic	35	3
22hrs. @ 200°C, B38	50	4
Percent of original deflection, max, 2-214		
22hrs. @ 275°C, Z2	35	23
22hrs. @275°C, Z3	50	39
Percent of original deflection, max, 2-214		
<b>Dry Heat Resistance 70 hrs. @ 250°C, basic, ASTM D573</b>		
Hardness Change, pts.	±15	0
Tensile Strength Change, %	±30	+15
Ultimate Elongation Change, %, max.	-50	-24
<b>Dry Heat Resistance 70 hrs. @ 275°C, A1-11, ASTM D573</b>		
Hardness Change, pts.	+10	-1
Tensile Strength Change, %, max.	-40	-10
Ultimate Elongation Change, %, max.	-20	-20
<b>Fluid immersion IRM 903 Oil, (70 hrs. @150°C) basic, ASTM D471</b>		
Volume Change, %, max.	+10	+2
<b>Fluid Immersion Reference Fuel C, (70 hrs. @ 23°C) EF31, ASTM D471</b>		
Hardness Change, Shore A pts.	±5	-3
Tensile Strength Change, % max.	-25	-12
Ultimate Elongation Change, %, max.	-20	+2
Volume Change, %	0 to +10	+4

