

FKM sealing compounds for low temperatures

Fluoroelastomer (FKM) sealing systems have been used successfully in millions of applications for the past decades. The particular strengths of FKMs are resistance to a broad range of chemicals and good high-temperature stability. In low-temperature applications (< 25 °C), however, the flexibility of standard fluoroelastomers is usually insufficient. For such applications compounds specifically optimised for cold temperatures are needed.

For use at low temperatures Parker's O-Ring Division has developed the V8802-80 and V8803-85 FKM compounds. Both have very good mechanical properties and their hardness values are found in the upper range of the spectrum.

V8802-80

With its low-temperature specification of -29 °C (TR10 acc. to ASTM D1329), 80 Shore A hardness and very good oil compatibility this compound offers a highly favourable performance profile. It is used whenever the capabilities of HNBR no longer suffice. Its blue colour makes it easy to distinguish V8802-80 from conventional – usually black - seals.

Compatibility tests for V8802-80 regarding the following media are available:

- ASTM Oil No. 1
- ASTM Oil 903
- HFC
- HLP
- HVLP
- HEES
- HFD-R
- PAO + Ester

V8803-85

Based on the latest compound technology, V8803-85 is setting new benchmarks in the group of fluoroelastomers. Its low-temperature specification of -40 °C (TR10 acc. to ASTM D1329) speaks for itself. In addition, with its hardness of 85 Shore A, this material shows improved extrusion resistance in high-pressure applications. Thanks to its excellent physical properties and chemical resistance that is comparable to highly fluorinated FKM elastomers, V8803-85 is perfectly suited for a wide range of applications.





Fields of application for low-temperature-optimised FKM compounds:

- ☐ Mobile hydraulics
- ☐ Low-temperature hydraulics
- ☐ Automotive fuel systems
- ☐ Aerospace
- ☐ Chemical industry
- ☐ Special-purpose applications

Physical data:

	Dimension	V8802-80	V8803-85
Polymer base		LT-FKM	LT-FKM
Colour		blue	black
Hardness	Shore A	80	85
TR10 (ASTM D1329)	°C	-29	-40
Compression set (70 h / 200 °C)	%	22	46

Subject to change



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