

Material name, short description	FKM
Material name, based on technical standards	Fluorine elastomer
Material description / intended use	Fluoroelastomer with high heat resistance and broad chemical resistance.
Color	brown
Compound code	FKM 80.315-02

Mechanical properties

Hardness nominal	80 ±5 Shore A ASTM D 2240
Density nominal	1.19 g/cm ³ ASTM D 297
Density	2.257 g/cm ³
Tensile strength	15.8 N/mm ² ASTM D 412
Elongation at break	148 % ASTM D 412
Compression set	12 % ASTM D 395-B 22 h, 175 °C
	15 % ASTM D 395-B 22 h, 200 °C
Tear resistance	30 N/mm ASTM D 624-C

Thermal properties

Operating temperature min.*	-15 °C
Operating temperature max.*	200 °C

* Approximate value, dependent on the application

Storage in medium 1

Medium	IRM 101 Oil (ASTM 101)
Test parameter	70 h, 200 °C
Test standard	ASTM D 471
Value change	Hardness: -7 Points Tensile strength: -25 % Elongation at break: +4 % Volume: +11.1 %

Storage in medium 2

Medium	ASTM 7700 / SAE Oil
Test parameter	70 h, 200 °C
Test standard	ASTM D 471
Value change	Hardness: -11 Tensile strength: -25 % Elongation at break: -7 % Volume: +15.1 %

Storage in medium 3

Medium	ASTM Fuel C
Test parameter	70 h, 23 °C
Test standard	ASTM D 471
Value change	Hardness: -2 Points Tensile strength: -10 % Elongation at break: +3 % Volume: +3.6 %

Storage in medium 4

Medium	IRM 901 Oil (ASTM 1)
Test parameter	70 h, 150 °C
Test standard	ASTM D 471
Value change	Hardness: -1 Points Tensile strength: +10 % Elongation at break: -6 % Volume: +0.4 %

In compliance with **RoHS** and **REACH** directives.

This information is based on our available data. These values are measured on standard test specimens and are within the normal tolerance range of material properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. The customer is solely responsible for quality and suitability of material for his application. He has to test usage and processing prior to use. Angst+Pfister makes no guarantees for the suitability of the material for any given application and assumes no obligation or liability in connection with the information provided above.

Storage in medium 5

Medium	IRM 903 Oil (ASTM 3)
Test parameter	70 h, 150 °C
Test standard	ASTM D 471
Value change	Hardness: -1 Points Tensile strength: +5 % Elongation at break: +2 % Volume: +2.5 %

Air aging 2

Test parameter	70 h, 275 °C
Test standard	ASTM D 573
Value change	Hardness: +4 Points Tensile strength: -32 % Elongation at break: +11 % Volume: -6.6 %

Air aging 1

Test parameter	70 h, 250 °C
Test standard	ASTM D 573
Value change	Hardness: +1 Points Tensile strength: -4 % Elongation at break: +7 % Volume: -2.1 %

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