PERTEC® UP FKM 70.501-07

Angst+Pfister

Sealing technology
Technical Data Sheet

Ultra-pure compound for sensitive applications

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	black
Compound code	FKM 70.501-07
Crosslinking/curing agent	Peroxide
Manufacturing process	moulded parts

Mechanical properties

Hardness nominal	70 ±5 Shore A
Hardness	75 Shore A ISO 7619-1
Density nominal	1.92 ±0.03 g/cm³
Tensile strength	20 N/mm² ASTM D 412
Elongation at break	316 % ASTM D 412
Compression set	35 % ISO 815-1B 22 h, 150 °C
	28 % ISO 815-1A 22 h, 200 °C

Thermal properties

Operating temperature min.*	-20 °C
Operating temperature max.*	200 °C
TR 10 value	-17 °C ASTM D 1329
Glass transition temperature	-17 °C
Brittleness point	-30 °C

** Approximate value, dependent on the application*

Storage in medium 1

Medium	IRM 901 Oil (ASTM 1)
Test parameter	70 h, 150 °C
Test standard	ISO 1817
Value change	Hardness: -0.5 Points Tensile strength: +1.0 % Elongation at break: +0.3 % Volume: +0.2 %

Storage in medium 2

Medium	IRM 902 Oil (ASTM 2)
Test parameter	70 h, 150 °C
Test standard	ISO 1817
Value change	Hardness: -0.5 Tensile strength: -2.6 % Elongation at break: +1 % Volume: +0.8 %

Storage in medium 3

Medium	IRM 903 Oil (ASTM 3)
Test parameter	70 h, 150 °C
Test standard	ISO 1817
Value change	Hardness: -1.5 Points Tensile strength: -6.3 % Elongation at break: +1.5 % Volume: +1.8 %

Storage in medium 4

Medium	ASTM Fuel C
Test parameter	70 h, 23 °C
Test standard	ISO 1817
Value change	Hardness: -3.0 Points Volume: +3.2 %

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.

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Storage in medium 5

Medium	ASTM FAM B
Test parameter	168 h, 23 °C
Test standard	ISO 1817
Value change	Hardness: -18 Points Tensile strength: -48 % Elongation at break: -20 % Volume: +23 %

Air aging 1

Test parameter	168 h, 225 °C
Test standard	ISO 188
Value change	Hardness: +6 Points Tensile strength: -19 % Elongation at break: -15 %

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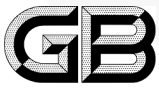
Approvals / Compliance

Drinking water	DVGW W270 for drinking water
	UBA Elastomer-Guideline for cold and hot water up to 85 °C
	WRAS (BS 6920) for drinking water cold and warm up to 85°C
Food & Bevarage	3-A Sanitary Standard N° 18-03 Class I
	FDA CFR 21 - 177.2600 a) - f)
	BfR XXI Category 4
	BNIC (Bureau National Interprofessionnel de Cognac)
	D.M. 21/03/1973 (Migration test)
	Dlgs. 25.01.1992 n.108 Art.2 (ex. DPR 777/82 art 2) - Complies with Arsenic content limits
	EC 1935/2004 (excl. article 15) and EC Regulation 2023/2006 (GMP)
	French Arrêté 05/08/2020 (Migration tests)
	KIWA NSF/ANSI 51 formulation
	LFGB§ 30/31
	SR 817.023.21
	GB 4806.11-2016 (Migration test)
	Mercosur GMC/RES N° 54/97 (Migration test)
Oil & Gas	BAM Tested maximum temperature 150 °C, maximum oxygen pressure 30 bar
Others	PAH Class I (AfPS GS 2019:01)
	ADI free (free of Animal Derived Ingredients) resp. TSE/BSE related substances
	DEHP, free of Phthalates

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