

# Datenblatt | Data sheet

## Rubber ball FPM

Balls made of fluorocarbon elastomer. Excellent resistance to corrosion, aging and high temperatures. Very well suited for sealing applications. Flammable compounds.

### Field of application

Pumps and safety valves (as a sealing element), pneumatic and hydraulic applications.

### Corrosion resistance

**Stable:** In case of contact with hydraulic fluids, lubricating oils, transmission fluids, non-polar petroleum products, aliphatic, aromatic and chlorinated hydrocarbons, mineral oils and greases, diesel oil, methanol-containing fuels, many dilute acids, bases and salt solutions, silicones, plants and animals at ambient temperature. Likewise in air /oxygen/ozone and in aqueous environments/steam.

**Unstable:** Against superheated water vapor and organic acids of low molecular weight, polar solutions, glycols, ammonia gases, amines and alkalis.

### Material

Technical name	Alternative name	Abbreviation
Fluorocarbon (Fluoroelastomer)	Viton	FPM, FKM

### Physical / mechanical / thermal / electrical / magnetic characteristics

Characteristic	Symbol	Unit	Type	Note	Value
Density	$\delta$	g/cm <sup>3</sup>	Physical	Environmental temp.	1,84
Modulus of elasticity	E	MPa	Mechanical	-	12
Elongation at break	A	%	Mechanical	Environmental temp.	≤ 500
Compression set	-	%	Mechanical	Environmental temp.	26
Coefficient of friction	$\mu$	-	Mechanical	Environmental temp.	0,70
Linear coefficient of thermal expansion	$\alpha$	10 <sup>-6</sup> /°C	Thermal	( $\Delta T = 0 - 100^\circ C$ )	125
Thermal conductivity	$\lambda$	W/(m*K)	Thermal	Environmental temp.	0,16
Electrical resistivity	$\rho$	$\Omega \cdot mm^2/m$	Electrical	-	> 10 <sup>8</sup>
Relative magnetic permeability	$\mu$	-	Magnetic	Diamagnetic	< -1

### Technical characteristics

Characteristic	Type	Unit	Type	Unit	Value
Hardness	Mechanical	Shore A	70 - 90	-	-
Break load in traction	Mechanical	MPa	7 - 21	psi * 10 <sup>3</sup>	1,00 - 3,00
Operating temperature	Thermal	° C	-18 - 200	° F	0 - 392

Available with		
Diameter min/max (mm)	Diameter min/max (in)	Precision grade
1,000 - 152,400	3/64 - 6	III