



Fluorocarbon Elastomer (FPM)

SPECIFICATIONS

Property	Spec	Value
Hardness (shore A)	ASTM D 2240	80 A
Specific Gravity	ASTM D 297	2.052 g/cm ³
Tensile Strength	ASTM D 412-98a	16.18 N/mm ²
Ultimate Elongation	ASTM D 412-98a	214%
Compression Set (%)	ASTM D395-03, METHOD B	13.60%
22 Hrs @ 200C	-	-
Color		Brown
Aging in No. 101 Oil 70hrs @ 200C Hardness: Volume:	ASTM D 471-98	-12.0 +20.6%
Aging in Fuel C 70hrs @ 23C Hardness: Volume:	ASTM D 471-98	-3.0 +2.7%

DESCRIPTION

MF63 is a FPM material with hardness 80A, specially compounded for standard grade applications. FKM typically has 65 to 70% fluorine content. There are five types of FKM, and they are differentiated either by trade names or specific end-use characteristics. The higher the fluorine content, the better fluid resistance they have. On the downside, higher fluorine content can reduce physical properties of an elastomer in regards to being prone to compression set or extrusion problems. In general FKM has good resistance to mineral oils, greases and some phosphate esters (HFD), silicon oils or grease, chlorinated solvents, air, ozone and fuels. The general grade FKM is not recommended for steam and hot water that is above 100°C, phosphate esters like Skydrol, polar solvents, fuels containing methanol, gear lubricants with EP additives, engine oils with amine additives, amines, alkalis, organic acids, and brake fluids. For special applications including the above incompatible environments, specialty types of FKM are available and need to be prudently selected. FKM can be molded by compression, transfer and injection molding processes. FKM can be a cost-effective material when its expected life time exceeds that which many other elastomers can provide.