Fluorocarbon Elastomer (FKM)

-CF₂-CH₂-CF

SPECIFICATIONS

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Property	Spec	Value
Hardness, Shore A	ASTM D2240-04	90±5
Tensile Strength, psi (MPa)	ASTM D412-98a	1450 (min)
Elongation, %	ASTM D412-98a	100 (min)
Modulus at 100%, psi (MPa)	ASTM D412-98a	1768 (12.2)
Specific Gravity (g/cm³)		1.843
A1 Heat Age, 70 hours @275°C	ASTM D573-04	
Hardness Change, Points Tensile Strength Change, % Elongation Change, % Weight Change, %		-5~+10 -40 (max) -20 (max) -4.9
B38 Compression Set hours @ 200°C, Method B	ASTM D395-03	20 % (plied)(max)
EF31 ASTM Fuel C Resistance, 70 hours @ 23°C	ASTM D471-98	
Hardness Change, Points Tensile Strength Change, % Elongation Change, % Volume Change, %		±5 -25 (max) -20 (max) 0~+10
E088 ASTM 7700/ SAE Oil, 70 hours @ 200°C	ASTM D471-98	
Hardness Change, Points Tensile Strength Change, % Elongation Change, % Volume Change, %		-15~+5 -40 (max) -20 (max) +25 (max)

The above tests were conducted with test piece and for reference only. The compound VT90 can meet ASTM D200 M7HK910 A1-11 B38 EF31 E088.

DESCRIPTION

MF64 is a FKM material with hardness 90A, specially compounded for low temperature 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, 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.