

FKM

Fluorine rubber refers to a synthetic polymer elastomer containing fluorine atoms on the carbon atoms of the main chain or side chain.

About FKM

Fluorine rubber has a high degree of chemical stability and is currently the best medium-resistant property among all elastomers. The high temperature resistance of fluorine rubber is the same as that of silicone rubber, which can be said to be the best among elastomers at present. 26-41 fluorine rubber can be used for a long time at 250 °C, and short-term use at 300 °C; 246 fluorine rubber has better heat resistance than 26-41. The physical properties of 26-41 after 300°C×100 hours of air heat aging are equivalent to those of 246 after 300°C×100 hours of hot air aging, its elongation at break can be maintained at about 100%, and its hardness is 90~95 degrees.

Application

Fluorine rubber (FKM) has been used in cutting-edge technologies such as modern aviation, missiles, rockets, space navigation, ships, atomic energy, etc. Petroleum, telecommunications, instruments, machinery and other industrial fields. Fluorine rubber seals, when used for engine sealing, can work for a long time at 200°C~250°C, and short-term work at 300°C. 10 years); when used in the chemical industry, it can seal inorganic acids (such as 67% sulfuric acid at 140°C, concentrated hydrochloric acid at 70°C, and 30% nitric acid), organic solvents (such as chlorinated hydrocarbons, benzene, high aromatic gasoline)) and other organic substances (such as butadiene, styrene, propylene, phenol, fatty acids at 275°C, etc.); when used in deep well oil recovery, it can withstand harsh working conditions of 149°C and 420 atmospheres; used for superheated steam seals It can work for a long time in the steam medium of 160~170°C.

Technical Data sheet of FKM

Physical Properties

Property	Value	Unit
Hardness Shore A - Slab	76.5	
Hardness - Test standard	ASTM D2240	
Compression set - Slab	18	%
Compression set - Duration @ temperature	22 hours at 200°C	
Compression set Test standard	ASTM D395-B	
Elongation at break	210	%
Elongation at break - Test standard	ASTM D412	
Tensile strength	15.1	MPa
Tensile strength - Test standard	ASTM D412	
100% Modulus	6.5	MPa
100% Modulus - Test standard	ASTM D412	