

## QFGF Series Peroxide-cured Fluoroelastomer

### Production Description:

QFGF-series F-rubber is high fluorine-contained ( 70%) superoxide vulcanized rubber, which is copolymerized with hexafluoropropylene monomer, Vinylidene Fluoride monomer, tetrafluoroethylene monomer and vulcanization monomer.

### Feature:

1. Fast vulcanization rate and excellent physical performances;
2. Excellent performances of thermal resistance, acid resistance, methanol tolerance and water resistance as well as tolerance to other chemical mediums;
3. Good adhesion property among dissimilar materials;
4. Better manufacturability.

### Product properties

	Properties	Typical Values		
		QFGF20	QFGF40	QFGF60
	Appearance	White Slice		
	Specific Gravity , g/cm <sup>3</sup>	1.89	1.90	1.90
Raw Gum	Mooney viscosity	20	40	60
	Tensile strength, MPa	18	22	23
	Elongation at break,	200	190	200
	Hardness (Shore A)	77	79	79
Curing Gum	Compression set, % (ASTM, method B, Compression Ratio 25%, 200°C× 70h), %	16	17	16
	Resistance Methyl (23°C×70h) weight loss, %	3.0	2.5	2

Note : We adopt the peroxide curing system to assess the recipe(DBPH 2.5/TAIC).The information herein is the typical data but not for specifications.

### The application of the product

In the chemical industry, it is applied in dynamic interconnecting part of pipeline, heat exchanger, gasket, pump accessory, O ring and fuel cell seal. In the iron and steel industry, it is used to replace solvent to clean the roller. In the semiconductor industry, it is applied in seal ring, gasket of vacuum piping. In the automobile industry, it has good performances of acid & alkali, MTBE gasoline and 50~100% methanol gasoline resistance.

QFGF-series products are increasingly used in valve stem seal to resist corrosion of oil from crankcase, protect continuous-heating and high-speed running engine, avoid excessive fuel oil consumption and prevent accumulation of toxic phosphorus. Peroxide crosslinking QFGF also can be applied in water, steam and hot water-resisting cooling seal of automobile engine.

QFGF series products also suit extremely bad working environment in oil field, such as 70 ~ 100MPa high pressure, 180 ~ 230°C or even higher temperature, fog that contains H<sub>2</sub>S, CH<sub>4</sub> and even chlorinated steam. The application of QFGF can enhance the reliability and working life of oil field equipment, reduce downtime and maintenance cost.

### Packaging and storage

The rubber is packed in plastic film bag with 5kg net weight, each carton net weight is 25kg. It is non-hazardous chemical, avoiding exposure and humidity. It should be stored in a cool, dry environment. If storage time more than 2 years please re-test before use.