

# Fluorosilicone Base General Purpose

## Composition

Uncatalyzed fluorosilicone rubber based on fluorosilicone gum, and mixed evenly with some kinds of fillers and additives.

## Characteristics

AFS-R®-M1000 is translucent fluorosilicone base. It has integrated advantages that both the silicone rubber and fluororubber have.

1.Wide application temperature range (-60°C~200°C); 2.Similar resistance to solvent & fuel oil to that of fluororubber; 3.Keeping high tensile force retention at high temperature which is like silicone rubber; 4.High insulation; 5.High selective permeability meets requirements of environmental protection.

Therefore it can be used as seal material in special condition with requirement of resistance to high and/or low temperature, oil and some other chemical mediums.

Items	Testing method	Index					
		M1030	M1040	M1050	M1060	M1070	M1080
Appearance	Eyeballing	translucent, smooth surface, without visible impurities					
Hardness (Shore A)	ASTM D2240	30±5	40±5	50±5	60±5	70±5	80±5
Specific Gravity (g/cm <sup>3</sup> )	ASTM D792	1.44±0.03	1.44±0.03	1.44±0.03	1.47±0.03	1.47±0.03	1.50±0.03
Tensile Strength (MPa) Die C	ASTM D412	≥7	≥9	≥9	≥9	≥8	≥7
Elongation at Break (%) Die C	ASTM D412	≥450	≥350	≥350	≥300	≥225	≥175
Tear Strength (KN/m) Die B	ASTM D624	≥20	≥20	≥20	≥20	≥15	≥15
Compression Set 177°C 22hr (25%) B type	ASTM D395	≤20	≤20	≤20	≤20	≤20	≤25
Volume Change (reference fuel B) (%) (23°C×70hr)	ASTM D471	≤25	≤20	≤20	≤20	≤20	≤20

Properties obtained using 0.53phr DBPH. Molded 15min at 170°C, post-cured 4hr at 200°C. If other cure temperature needed, vulcanization system shall be changed.

## Application

- 1.Aviation industry: seals in aircraft to resist to fuels and/or lubricants, such as O-rings, spacers, integral tank sealing, sensor material, diaphragms and clips for spacers.
- 2.Auto industry: used as sealing rings, grease seals, diaphragms, pipes and valve-linings for various types of vehicles.
- 3.Petrochemistry industry: sealing parts used in pump, valve and oil tank, which are used under high/low temperature and chemical circumstance.
- 4.Medical and health care: used in manufacturing medical apparatus or instruments, artificial visceral organs, such as medical pipes, medical hoses for fluids and artificial valves.

**Package** Plastic bags, 12.5kg per sack, 2 sacks in 1 carton.

**Storage** Shall be stored in dry and ventilated places at room temperature (25°C). Validity is 1 year.

**Transportation** Transport it as non-dangerous cargo.

## Attention:

- 1.The product shall be kept neutral, avoid being contacted with acid, alkaline substance.
- 2.The product can flow under its own weight. Keep it in good condition of packing during transportation and application in order it not to flow out.