

Fluorosilicone Base High Tear Strength

Composition

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

Characteristics

AFS®-R-T1000 is translucent fluorosilicone base. It has integrated advantages that both the silicone rubber and fluororubber have.

1.Its tear strength is higher than normal ones of AFS®-R-M1000; 2.Wide application temperature range (-60°C~200°C); 3.Similar resistance to solvent & fuel oil to that of fluororubber; 4.Keeping high tensile force retention at high temperature which is like silicone rubber; 5.High insulation; 6.High selective permeability meets requirements of environmental protection.

Therefore it can be used as dynamic 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			
		T1040	T1050	T1060	T1070
Appearance	Eyeballing	translucent, smooth surface, without visible impurities			
Hardness (Shore A)	ASTM D2240	40±5	50±5	60±5	70±5
Specific Gravity (g/cm ³)	ASTM D792	1.44±0.03	1.44±0.03	1.47±0.03	1.47±0.03
Tensile Strength (MPa) Die C	ASTM D412	≥9	≥9	≥9	≥8
Elongation at Break (%) Die C	ASTM D412	≥425	≥375	≥325	≥250
Tear Strength (KN/m) Die B	ASTM D624	≥40	≥40	≥40	≥35
Compression Set 177°C 22hr (25%) B type	ASTM D395	≤25	≤25	≤25	≤25
Volume Change (reference fuel B) (%) (23°C×70hr)	ASTM D471	≤25	≤25	≤25	≤25

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.