

Fluorosilicone Base Super High Rebound Resilience

Composition

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

Characteristics

AFS[®]-R-R1001 is translucent fluorosilicone base. It has integrated advantages that both the silicone rubber and fluororubber have.

1.It has better rebound resilience 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 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		
		R1041	R1051	R1061
Density (g/cm ³)	GB/T 533	1.42±0.03	1.43±0.03	1.43±0.03
Hardness (Shore A)	GB/T 531.1	40±5	50±5	60±5
Tensile Strength (MPa) 1 type	GB/T 528	≥8	≥9	≥9
Elongation at Break (%) 1 type	GB/T 528	≥350	≥275	≥275
Tear Strength (KN/m) C type	GB/T 529	≥18	≥18	≥18
Compression Set 177°C 22hr (25%) B type	GB/T 7759-1	≤15	≤15	≤15
Vertical Rebound Resilience (%)	ASTM D2632	≥27	≥27	≥27
Volume Change (reference fuel B) (%) (23°C×70hr)	GB/T 1690	≤25	≤25	≤25

Properties obtained using 0.53phr DBPH. Molded 10min at 170°C, post-cured 4hr at 200°C. If other cure temperature needed, vulcanization system shall be changed.

Application

- 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.
- Auto industry: used as sealing rings, grease seals, diaphragms, pipes and valve-linings for various types of vehicles.
- Petrochemistry industry: sealing parts used in pump, valve and oil tank, which are used under high/low temperature and chemical circumstance.
- 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:

- The product shall be kept neutral, avoid being contacted with acid, alkaline substance.
- 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.