Technical Data Sheet

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Fluorosilicone Rubber LR-F5100

Description:

Silfluo LR-F5100 series consists of uncompounded fluorosilicone gums (FVMQ). It provides a base polymer matrix characterized by resistance to non-polar solvents, automotive fuels, and aviation oils, maintaining physical flexibility between -60°C and 200°C. It serves as the primary raw material for high-consistency fluorosilicone rubber (HCR) compounding.
Chemical Name: Fluorosilicone Gum (FVMQ)
Synonyms: Fluorovinylmethylsiloxane Base Polymer

Typical Technical Properties:

Test Item	Standard		
	Test Method	LR-5100A	LR-5100B
Appearance	Visual	Colorless transparent	Colorless transparent
Odour	No special odour	No special odour	No special odour
Molecular Weight (10^4)	GBT-28610	50~70, 80~100, 110~130	50~70, 80~100
Vinyl Content (mol/%)	GBT-28610	0.05~1	0.05~1
Density (25°C, g/cm^3)	GBT 2013-2010	1.25~1.30	1.05~1.23
Volatile Content (150°C, 3h %)	GBT-28610	⩽1.0	⩽1.0

Applications:

1. Elastomer Compounding: Utilized as the primary base polymer for formulating heat-curable fluorosilicone (FVMQ) compounds.
2. Automotive & Aerospace: Formulated into end-use components requiring continuous exposure to fuels and aggressive fluids, including O-rings, diaphragms, fuel line seals, and turbocharger hose liners.
3. Polymer Modification: Blended with standard methyl-vinyl silicone (VMQ) bases to increase the solvent and oil resistance profiles of conventional silicone formulations.

Package &Storage:

Packed in aluminum foil bag inside a carton, 20kg per Carton.
Keep in a cool, dry, and well-ventilated environment, strictly avoiding direct sunlight and ignition sources. As a high-molecular-weight gum, this material exhibits cold-flow characteristics; avoid physical damage to the inner packaging during transport to prevent leakage. The shelf life is 24 months from the date of manufacture when stored in original unopened containers (material can still be utilized if it passes quality inspection after the expiration date). Classified and transported as a non-hazardous substance.

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