Technical Data Sheet

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Silfluo LR-F5200

High Tear Strength Series Fluorosilicone Rubber

Description:

Silfluo LR-F5200 series is a high tear strength fluorosilicone elastomer compound. It is formulated from a fluorosilicone base polymer blended with reinforcing fillers and additives. Upon vulcanization, it provides mechanical toughness, tear resistance, and physical stability upon exposure to non-polar solvents, automotive fuels, and extreme temperatures.

Chemical Name: High Tear Strength Fluorosilicone Rubber Compound (FVMQ HCR)

Synonyms: Fluorosilicone Compound, FVMQ Elastomer

Typical Technical Properties:

Test Item	Standard			
	Test Method	LR-5240	LR-5250	LR-5260
Appearance	Visual	Milk white, translucent		
Specific Gravity (g/cm3)	ASTM D792	1.42	1.44	1.45
Hardness / shoreA	ASTM D2240	40	50	60
Tensile Strength (MPa)	ASTM D412	10.1	10.2	10.3
Elongation At Break (%)	ASTM D412	490	457	440
Tear Strength (kN/m)	ASTM D624-B	35	42	43
Compression Set (177°C*22h)	ASTM D395	11	11	12
Heat Resistance 225°C X 72h	Hardness change / shore A	+3	+3	+2
	Tensile strength change %	-19	-16	-17
	Elongation at break change %	-14	-17	-18
Fuel C Volume change/% 23°C/72h	ASTM D471	23	21	20
Curing Condition	0.7 DBPH, Press cure: 170°C x 15min, Post cure: 200°C x 4h			

The above values are not intended for use in preparing specifications.

Heat resistance additives need to be added to meet the requirements of heat resistance.

Applications:

Elastomeric Components: Molded into industrial and mechanical parts requiring physical tear resistance combined with continuous exposure to oils, solvents, and fuels.

Processing Advice:

1. Vulcanizing Agent: The recommended addition ratio is 0.6 to 1.0 phr of DBPH [2,5-Dimethyl-2,5-

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di(tert-butylperoxy)hexane].
2. Curing Profile: Standard technical data is derived using 0.7 phr DBPH. Press cure at 170°C for 15 minutes, followed by a post-cure at 200°C for 4 hours. Actual production parameters (temperature and time) must be calibrated based on part dimensions and molding methods.
3. Thermal Stabilization: Additional heat stabilizers must be incorporated into the formulation if the final component needs to meet extended high-temperature aging requirements.

Package &Storage:

In 20kg reinforced cardboard box (contains two 10kg plastic bags).
Keep in a cool, dry, and well-ventilated environment, strictly avoiding direct sunlight and ignition sources. The material exhibits cold-flow characteristics; avoid physical damage to the inner bags during transport and handling. The shelf life is 12 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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