Technical Data Sheet

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Silfluo LF-H101L

Low Hydrogen Silicone Fluid

Description:

The Silfluo LF-H101L Series consists of partially hydrogenated silicone fluids, chemically structured as methylhydrogen-dimethylsiloxane copolymers. Compared to standard high-hydrogen fluids, this series features strategically controlled silicon-hydrogen (Si-H) bond densities. This precise molecular design allows formulators to accurately dial in crosslinking density, flexibility, and reaction rates.

Acting as a highly versatile crosslinker and chemical intermediate, it readily undergoes hydrosilylation or dehydrogenative coupling under metal catalysis. Upon curing, it forms a durable, breathable, and water-repellent membrane, providing outstanding moisture-proof protection while maintaining excellent substrate flexibility and soft tactility.

Typical Technical Properties:

Silfluo Code:	LF-H101L
Chemical Name:	Methyl Hydrogen Silicone Fluid (Copolymer)
Synonyms:	Methylhydrogen-Dimethylsiloxane Copolymer; Low-H Silicone Oil
Molecular Formula:	$(CH_3)_3SiO[(CH_3)HSiO]_n[(CH_3)_2SiO]_nSi(CH_3)_3$
Appearance:	Colorless transparent liquid
CAS NO.:	63148-57-2
Viscosity (25°C, mpa.s)	10-1000 (can be customized)
Hydrogen Content, wt%	0.1 ~ 1.5 (can be customized)
Density (25°C):	0.98-1.00
Volatiles(%):	⩽1
pH Value	6.0-7.0

Various viscosity and hydrogen can be customized.

Applications:

Leveraging its controlled reactivity and copolymer structure, the LF-H101L is exceptionally suited for:

1. Controlled Crosslinker for LSR: Acts as a precision crosslinking agent in addition-cure Liquid Silicone Rubber (LSR) and silicone encapsulants. The controlled hydrogen content allows for the formulation of softer elastomers with higher elongation, superior tear strength, and tailored curing kinetics.
2. Specialty Chemical Intermediate: An essential synthetic base for manufacturing advanced modified silicones (e.g., polyether, epoxy, or alkyl-modified fluids). The lower Si-H density is specifically ideal for grafting bulky side chains without inducing spatial steric hindrance.
3. Dry Powder Treatment: Utilized as a highly efficient, anti-caking hydrophobic coating for dry chemical fire extinguishing powders, ensuring long-term flowability and moisture resistance.
4. Universal Hydrophobing Agent: Provides excellent, breathable moisture-proof treatments for a wide array

of building materials, including glass, ceramics, cement, marble, metals, and leather, without compromising the substrate's natural flexibility or texture.

Package &Storage:

In 50kg, 200kg drum and 1000kg IBC.

Keep in cool, dry and ventilated place. Keep away from sunlight and fire sources. Keep in unopened containers, shelf life is 12 months from the date of production. It is shipped as non-hazardous substance.

Storage beyond the shelf life does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.