Technical Data Sheet

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Silfluo LR-MQ Powder

Methyl MQ Silicone Resin

Description:

Silfluo LR-MQ is a solid methyl MQ silicone resin produced by co-hydrolysis of tetraalkoxysilane (Q units) and trimethyl-functional silanes (M units), forming a three-dimensional trimethylsilane-terminated polysilicate network with M/Q ratio of 0.60 – 0.80. Supplied as a free-flowing spherical white powder with average particle size of 100 μm and bulk density of 0.25 g/cm^3 , the resin contains only trace aliphatic hydrocarbons and ≤0.5% hydroxyl content.

Uniform particle size and low fine-dust content provide consistent flow behavior during weighing and compounding. The low hydroxyl content (≤ 0.5%) reduces the risk of condensation side reactions in moisture-sensitive addition-cure systems and defoamer formulations.

LR-MQ is also available in toluene solution and silicone oil dispersion delivery forms for applications where powder incorporation is not practical.

Typical Technical Properties:

Silfluo Code:	LR-MQ
Appearance	White powder
Powder Packing Density(g/cm^3):	0.25
Molecular Weight:	5000±1000
Average Granularity(μm):	100
Hydroxyl Content(%):	≤0.5
M/Q value:	0.60~0.80

Solubility:

Hydroxyl Silicone Fluid:	●
Methyl Silicone Oil:	●
Vinyl silicone Oil:	●
White Oil:	○
Castor Oil:	○
Paraffin 52:	○
PE wax:	○

Isopropanol:	●
Ethanol:	●
Water:	○
Toluene:	●
Glycerin:	○
Propylene Glycol:	○
Ethyl Acetate:	●
C9-C13 isoparaffins:	●

○=Insoluble ●=Soluble (≥20%)

Delivery form

Powder type, toluene liquid, silicone oil dispersion

Applications:

1. High-Temperature Industrial Defoamers

The base resin for formulating defoamers and foam stabilizers for high-temperature chemical processes and industrial ink manufacturing.

2. Polyurethane Mold Release Agents

Used in PU processing to prepare high-solids release concentrates or solvent-borne anti-blocking agents, providing demolding performance and compatibility for post-coating of molded components.

3. Silicone Pressure-Sensitive Adhesives (PSAs)

Used as a tackifying network resin in addition-cure PSAs, contributing cohesive strength and peel force control for industrial tapes and protective films.

4. Transparent Reinforcing Fillers

Incorporated into addition-cure LSR and transparent elastomer systems to improve mechanical strength, tear resistance, and dimensional stability without reducing optical clarity.

Package &Storage:

In 20kg box.

Keep in cool, dry and ventilated place. Keep away from sunlight and fire sources. Keep in unopened containers, shelf life is 24 months from the date of production. Transported 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.