



Silfluo LF-OHPM

Phenyl Methyl Hydroxy Silicone Fluid

Description:

Silfluo LF-OHPM is a silanol-terminated polymethylphenylsiloxane (CAS 80801-30-5) with methylphenylsiloxane repeat units and reactive Si - OH end groups on both chain termini.

The mixed methyl-phenyl substitution on silicon places LF-OHPM between standard PDMS (LF-OHP, methyl only) and fully diphenyl-substituted LF-OHP2 in terms of refractive index (1.430 - 1.500), thermal stability, and low-temperature flexibility — the methyl groups retain chain flexibility that the all-phenyl LF-OHP2 sacrifices, while the phenyl groups raise RI, thermal stability, and radiation resistance above standard PDMS.

Viscosity range (500 - 20,000 mPa • s) spans medium to high molecular weight, allowing selection based on required compound processing viscosity and target cured elastomer mechanical properties.

Typical Technical Properties:

Silfluo Code:	LF-OHPM
Chemical Name:	Silanol-Terminated Polymethylphenylsiloxane
Synonyms	Phenyl Methyl Hydroxy Silicone Oil; Hydroxy-Terminated Phenylmethyl Siloxane
CAS No. :	80801-30-5
Molecular Formula:	HO-[Si(CH ₃)(C ₆ H ₅)O] _n -H
Appearance:	Clear to yellowish transparent viscous liquid
Viscosity (25°C, mPa.s):	500-20000
Density (25°C, g/cm ³):	0.98
Refractive Index(25°C, nD25)	1.430 ~ 1.500
Chemical Structure:	

Applications:

Leveraging its unique phenyl-methyl balance and reactive end-groups, the LF-OHPM is essential in the following high-value applications:

1. Optical & LED Encapsulation: Serves as a critical high-index reactive base for formulating optical-grade silicone encapsulants. The increased refractive index perfectly matches LED chips and optical lenses, enhancing light extraction efficiency while preventing thermal and UV-induced yellowing.
2. High-Temperature Resin Modifier: Acts as a modifier for standard silicone resins, epoxies, and polyimides. It crosslinks into the polymer matrix to dramatically improve high-temperature flexibility, ablation resistance, and overall thermal shock performance.
3. Extreme-Environment RTV Sealants: Utilized as the primary base polymer for specialty Room Temperature Vulcanizing (RTV) sealants that must maintain elasticity and structural integrity in extreme

Technical Data Sheet



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thermal or high-radiation environments (e.g., aerospace, nuclear, and automotive exhaust sensors).

4. Specialty Coatings & Damping Fluids: Employed as a intermediate to synthesize advanced, weather-resistant industrial coatings and extreme-duty damping/lubricating compounds.

Package &Storage:

In 200kg/drum; 1000kg/IBC.

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. 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.