

Technical Data Sheet



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Phenylvinyl Silicone Oil LF-PV11

Description:

Chemical Name: Phenylvinyl silicone oil

Special Features:

High Refractive Index: A higher phenyl content correlates with a higher refractive index (typically ranging from 1.43 to 1.53), which significantly enhances the light transmission and optical clarity of final products;

Reactive Groups: The molecular structure features vinyl groups on chain ends or side chains. These facilitate addition reactions with hydride crosslinkers under platinum catalysis to form elastomers or rigid resins;

Excellent Stability: The incorporation of phenyl groups endows the material with exceptional resistance to high and low temperature extremes, radiation resistance, and self-extinguishing properties;

Superior Compatibility: Compared to standard vinyl silicone fluids, this material offers superior compatibility with organic resins and various fillers.

Typical Technical Properties:

Test Item	Test Method	Standard	
		LF-PV11-A	LF-PV11-B
Appearance	Visual	Colorless transparent liquid	
Viscosity (25°C, mPa.s)	HG/T 2363-2012	200~10000	500~10000
Refractive Index (25°C)	GBT 6488-2008	1.49~1.52	1.52~1.54
Density (25°C, g/cm³)	GBT 2013-2010	1.00~1.05	1.05~1.10
Volatile (150°C, 3h %)	GBT 28610	≤2.0	≤2.0
Vinyl Content(%)	GBT 28610	0.5~3.0	0.1~1.5

Applications:

- LED Encapsulation: Acts as a refractive index modifier and base resin, improving the light extraction efficiency and thermal stability of LED devices.
- Optical Clear Adhesives (OCR/OCA): Used in the formulation of high-performance optical adhesives, delivering high transparency and long-term resistance to yellowing.
- Silicone Rubber Modification: Enhances the mechanical strength, transparency, and thermal resistance of addition-cure silicone rubbers.
- Electronic Potting: Ideal for the potting and encapsulation of precision electronic components, providing moisture protection, thermal resistance, and electrical insulation.

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Package & Storage:

In 25kg and 200kg drum.

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. 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.