技术数据表

文件号 No.: Q/XHCJ 076004-2014

版本号 Version: A/2

生效日期 Effective: 2014-10-15

STARSIL® FLD 47V50 - 47V1000

中粘度硅油

概述 STARSIL® FLD 47V50 - 47V1000 是直链聚二甲基硅油。

STARSIL® FLD 47V50 - 47V1000 可以用于:

- 导热油(-50℃~+200℃);
- 复印机抗污剂;
- 室温硫化硅橡胶和硅酮密封胶的稀释剂和增塑剂;
- 消泡剂原料;
- 纺织纤维和线(合成缝纫线)的润滑剂和热保护剂;
- 维护性产品组分(上光剂、蜡上光剂、地板和家具的上光剂等);
- 油漆添加剂(防缩、防漂浮/防水和防刮等作用);
- 粉末类(油漆和塑料)和纤维类(玻纤)的防水处理;
- 脱模剂(塑料和金属铸造的脱模剂);
- 润滑剂(弹性体或塑料与金属的润滑);
- 苯乙烯-丁二烯泡沫塑料的表面活性剂;
- HCR应用中作为HCR降低硬度的助剂。

STARSIL® FLD 47V50 - 47V1000 具有下列性能:

- 优异的耐高、低温性;
- 良好的抗燃烧性;
- 低表面能;
- 高压缩性;
- 耐候性;
- 良好的抗氧化性;
- 粘度随温度变化小;
- 良好的抗长时间高剪切性。

性能	STARSIL® FLD					
	47V50	47V100	47V300	47V350	47V500	47V1000
外观	无色、透明液体					
粘度 25℃, mm²/s, 约	50	100	300	350	500	1000
相对密度,25℃,约	0.959	0.965	0.970	0.970	0.970	0.970
闪点(开口杯),℃,约	280	≥300	≥300	≥300	≥300	≥300
流动点,℃,约	-55	-55	-50	-50	-50	-50
折射率,25℃,约	1.402	1.403	1.403	1.403	1.403	1.403
表面能, mN/m, 25℃, 约	20.7	20.9	21.1	21.1	21.1	21.1
200℃蒸汽压, Pa, 约	1.33	1.33	1.33	1.33	1.33	1.33
体积膨胀系数(25℃	1.05*	9.45*	9.45*	9.45*	9.45*	9.45*
~ 100 °C), $cm^3/cm^3/$ °C,约	10 ⁻³	10^{-4}	10^{-4}	10^{-4}	10^{-4}	10 ⁻⁴
热容(40℃~200℃),	1.46	1.46	1.46	1.46	1.46	1.46
J/(g.K)						
热导率, W/(m.K), 约	0.16	0.16	0.16	0.16	0.16	0.16
粘温系数 ^[1] ,约	0.59	0.60	0.62	0.62	0.62	0.62

[1] 粘温系数=1-(100℃粘度/40℃粘度)

特性

用途

优点



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STARSIL[®] FLD 47V50 - 47V1000

中粘度硅油

包装	STARSIL[®] FLD 47V50 - 47V1000 以 25 kg 或 200kg 桶装,或 1000kg 箱装或 20 吨的槽车装。
储存与保存期限	在-20℃~+50℃条件下保存在原装密闭容器中, STARSIL[®] FLD 47V50 - 47V1000 的标准有效期是从生产日期起 1 年(失效日期)。请参考包装上的储存建议和失效日期。 超过这个日期后,蓝星有机硅将不再保证产品符合销售的指标。
安全	请参考 STARSIL [®] FLD 47V50 - 47V1000 的安全数据表(MSDS)。
使用限制	STARSIL® FLD 47V50 - 47V1000 产品没有经过测试也没有明确声明可以适用于医疗或制药。

Visit our website: www.lxxh.chemchina.com

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PERFORMANCE ADDITIVES

METHYL SILICONE FLD 47V50 - 47V1 000



Technical Data Sheet No. Q/XHCJ 076249-2018 Version: A/4 Effective: 2019-04-17

Middle Viscosity Silicone Oils

DescriptionMETHYL SILICONE FLD 47V50 - 47V1 000 are straight chained polydimethylsiloxane fluids.

Examples of applications

METHYL SILICONE FLD 47V50 - 47V1 000 are used as:

Anti-blotting products for photocopying machines

Thinning and plastifying agents for RTV's and silicone sealants

Raw material for Antifoam

Lubricating and heat protecting agents for textile threads (synthetic sewing threads)

Ingredients in maintenance products (polishes, wax polishes, floor and furniture polishes)

Paint additives (anti-cratering, anti-floating/flooding and anti-scratching effects, etc.)

Water repellent treatment:

-of powders (for paints and plastics),

-of fibres: glass fibres

Release agents (mould release of plastics and metal castings)

Lubricants (lubrication of elastomers or plastics on metal)

Surfactants for styrene-butadiene foam

HCR application to reduce hardness

Key benefits

METHYL SILICONE FLD 47V50 - 47V1 000 have the following properties:

Very good resistance to high and low temperature

Good combustion resistance

Low surface tension

High compressibility

Absence of ageing upon exposure to atmospheric agents

Good oxidation resistance

Little change in viscosity with temperature

Good resistance to high and prolonged shear stress.



METHYL SILICONE FLD 47V50 - 47V1 000

Technical Data Sheet No. Q/XHCJ 076249-2018 Version: A/4 Effective: 2019-04-17

Typical properties

Properties	METHYL SILICONE FLD					
	47V50	47V100	47V300	47V350	47V500	47V1000
	A2	A2	A2	A2	A2	A2
Appearance	Colourless, limpid liquid					
Viscosity at 25°C, mm²/s, approx.	50	100	300	350	500	1 000
Specific gravity at 25°C, approx.	0.959	0.965	0.970	0.970	0.970	0.970
Flash point (Open cup), °C, approx.	280	≥300	≥300	≥300	≥300	≥300
Freezing point, °C, approx.	-55	-55	-50	-50	-50	-50
Refractive index at 25°C, approx.	1.402	1.403	1.403	1.403	1.403	1.403
Surface tension at 25°C, mN/m, approx.	20.7	20.9	21.1	21.1	21.1	21.1
Vapor pressure at 200°C, Pa, approx.	1.33	1.33	1.33	1.33	1.33	1.33
Volume expansion coeff.	10.5*	9.45*	9.45*	9.45*	9.45*	9.45*
Between 25°C and 100°C, cm³/cm³/°C,approx.	10-4	10 ⁻⁴				
Specific heat capacity between 40°C and 200°C, J/(g.K)	1.46	1.46	1.46	1.46	1.46	1.46
Thermal conductivity, W/(m.K), approx.	0.16	0.16	0.16	0. 6	0.16	0.16
Viscosity/temperature coeff. [1], approx.	0.59	0.60	0.62	0.62	0.62	0.62

^[1] Viscosity/temperature coefficient =1- $\,$ (Viscosity at 99 $^{\circ}\text{C/V}$ is cosity at 38 $^{\circ}\text{C}$)

Packaging	METHYL SILICONE FLD 47V50 - 47V1 000 are available in 200 kg drums, in 950kg IBC containers or in 20 tonnes tank.
Storage and shelf life	When stored in its original packaging at a temperature between -20°C and 50°C METHYL SILICONE FLD 47V50 - 47V1 000 may be stored for up to 36months from its date of manufacture. Comply with the storage instructions and expiry date marked on the packaging. Beyond this date, Elkem Silicones no longer guarantees that the product meets the sales specifications.
Safety	Please consult the Safety Data Sheet of METHYL SILICONE FLD 47V50 - 47V1 000.

 $\label{thm:com-www.silicones.elkem.com} \begin{tabular}{ll} Visit our website $\underline{$www.silicones.elkem.com}$ \end{tabular}$



METHYL SILICONE FLD 47V50 - 47V1 000

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