Technical Data Sheet



Element14* PDMS 100K

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Description

Element14 PDMS High Viscosity Oils are linear polydimethylsiloxane polymers with kinematic viscosities of 5000, 10000, 12500, 30000, 60000 and 100000 cSt.

Key Features and Benefits

Silicones differ from organic compounds in both their physical and chemical properties.

- High and low temperature stability
- Oxidative stability
- Chemically inert
- Low flammability
- Low surface tension
- Shear stability
- High compressibility
- Low vapor pressure
- Low odor
- Soft, smooth silky feel
- Non-oily feel
- Spreadability
- Low coefficient of friction
- Lubricious

	Element14	Element14	Element14	Element14	Element14	Element14			
	PDMS 5K	PDMS 10K	PDMS 12.5K	PDMS 30K	PDMS 60K	PDMS 100K			
Viscosity cSt	5000	10000	12500	30000	60000	100000			
Appearance	Clear, Colorless Liquid								
Color (APHA)	<=15	<=15	<=15	<=15	<=15	<=15			
Weight Loss %	1.5	1.5	1.5	1.5	1.5	1.5			
Viscosity @ 25°C	4500- 5000	9000- 11000	11250- 13750	27000- 33000	54000-66000	90000- 110000			
Specific Gravity g/cm3 at 25°C (Guaranteed 1/50)	0.967- 0.975	0.967- 0.975	0.967- 0.975	0.969- 0.977	0.969- 0.977	0.969- 0.977			

Typical Physical Properties

Refractive Index at 25°C	1.4	1.4015- 1.4055	1.4	1.4015- 1.4055	1.4015- 1.4055	1.4
Haze (NTU)	8	8	8	8	8	8
Flash Point, Open Cup, °C	>316	>316	>316	>316	>316	>316
Pour Point, °C	-50	-50	-50	-50	-50	-50
Surface Tension Dynes/cm at 25°C	21.3	21.3	21.3	21.3	21.3	21.3

Potential Applications

Element14 PDMS High Viscosity Oils may be considered for use in several industrial and consumer applications.

- Heat and mechanical transfer fluid
- Hydraulic fluid
- Electrical insulating fluid
- Water repellent
- Polish ingredient
- Mold release agent
- Lubricant
- Anti-foam
- Personal care ingredient
- Textile spin finishes
- Paints and coatings additive

Patent Status

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