

**Technical Data Sheet** 

# Element14<sup>™</sup> PDMS 10K

Element14\* PDMS 10K

# 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

# **Typical Physical Properties**

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	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	
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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