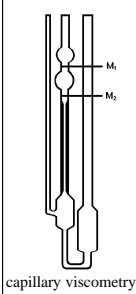


Product Specifications

Laboratory Data:

Kinematic Viscosity (DIN)		
 capillary viscometry	Temperature	ν (mm ² /s)
		0°C [32°F] 20°C [68°F] 40°C [104°F]
	Viscosity Index (ISO)	420
Viscosity-Temperature-Behavior very good		

Permanent Low Temperature -50°C
(72 hrs without crystallization) [-58°F]
Application Temperature -45°C to +120°C
[-49°F to +248°F]

Density 20°C [68°F] (DIN) 0.97 g/cm³
Surface Tension 22 mN/m
Color (ASTM) colorless
Evaporation Rate (16 hrs/105°C [221°F]) -0.1 %
low
Wetting very good
Durability very good

Compatibility with Plastics
compatible LCP, PA66, PBTP, PC, POM, PPO, SB
satisfactory ABS
incompatible ASA, POM (CL)
Chemical Name Frigopolysiloxane-alcohol

Comments:

Plastic Oil K4563 has been developed particularly for applications in the automotive and aviation field. It fulfills the requirement to withstand 48 hours low temperature storage at -40°C [-40°F]. The oil exhibits strong noise damping characteristics between -40°C and 120°C [-40°F and 248°F], due to its excellent viscosity-temperature-behavior. Compatible with nearly all plastics. Unaffected by humidity. Applicable under high pressure loads. Good wetting characteristics. Epilamination with Antispread necessary, when applying large quantities of oil.

Experiences: Basic oil in over 70.000.000 automotive instruments. Long-term stability (over 10 years) is well established.

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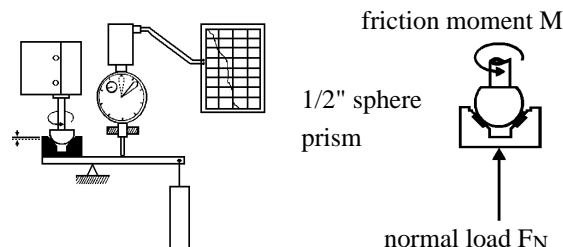
Plastic Oil K4563/100

Article No.: TS3010

Precision Oil for Automotive and Aviation Instruments

Tribological Data:

Test system: sphere on prism (ISO 7148/2)

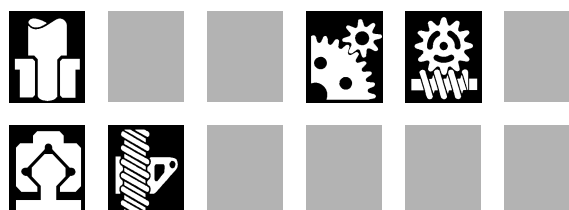


Friction Behavior					
dependent on sliding speed					
ν (mm/s)	f	friction coefficient f			
		0.1	0.2	0.3	0.4
0	0.11	[Bar chart showing high friction]			
20	0.01	[Bar chart showing low friction]			
50	0.01	[Bar chart showing low friction]			
200	0.01	[Bar chart showing low friction]			
materials:		steel/POM, load 3N, 25°C [77°F]			
lubricant:		Plastic Oil K4563/100			

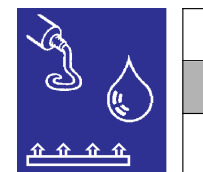
Wear Behavior						
comparison: dry and lubricated with Plastic Oil K4563/100						
materials		wear (in mm)				
		0.01	0.03	0.1	0.3	1.0
St/POM: K4563	dry	[Bar chart showing high wear]				
	dry	[Bar chart showing low wear]				
St/PBTP: K4563	dry	[Bar chart showing high wear]				
	dry	[Bar chart showing low wear]				
test parameters:		load 30N, distance 10 km, 25°C [77°F], $\nu = 28.1$ mm/s				

Application:

Plastic bearings in automotive and aviation instruments, instruments under difficult environmental conditions, meters and controls in cold-storage rooms, meteorological instruments, offshore applications. Speedometers, tachometers, automotive clocks, timers, meters, clocks.



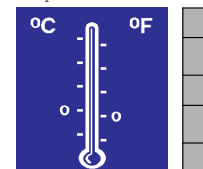
Product



Bearing material



Application temperature



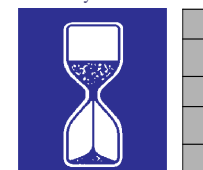
Bearing load



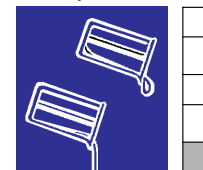
Sliding speed



Durability



Viscosity



Wetting

