

Priolube™ 3982

High viscosity ester for industrial gear oils



Industrial gearboxes operate under intense loads over extended periods of time, placing significant stress on the lubricant and increasing the risk of wear. Operators require greater efficiency and longer oil drain intervals, while the industry pushes for higher bio-based content.

Developed to meet this demand, Cargill™ Priolube™ 3982 base oil – a high performance, 83% bio-based, and shear stable complex ester – functions as an ideal thickener for formulators looking to create innovative industrial gear oils.

83% bio-based and shear-stable alternative to PAO 100

Priolube™ 3982 enables ISO VG 68-460 formulations with up to 25% less thickener. With proven friction reduction, it can enhance power transmission efficiency, supporting energy savings. The minimal viscosity loss after 20 hours in KRL shear stability test guarantees long-term protection under severe mechanical stress.

Property	Kinematic viscosity at 40°C	Kinematic viscosity at 100°C	Viscosity index	Pour point	Bio-based content by 14C testing (ASTM D6866-24)
Units	cSt	cSt	-	°C	%
Value	5000	300	198	-33	83

Why choose Priolube™ 3982 ester?



Reduced Thickener Consumption



Improved Efficiency and Reduced Friction



Shear Stability



High Bio-based Content - 83%*

*Based on ASTM 6866-24

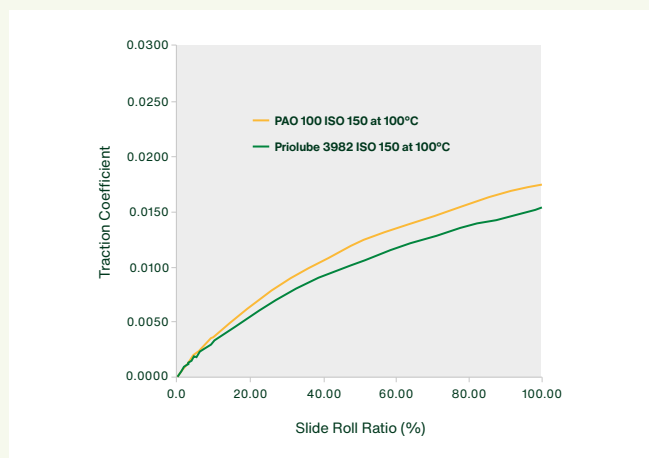
Proven performance

Reduced thickener consumption



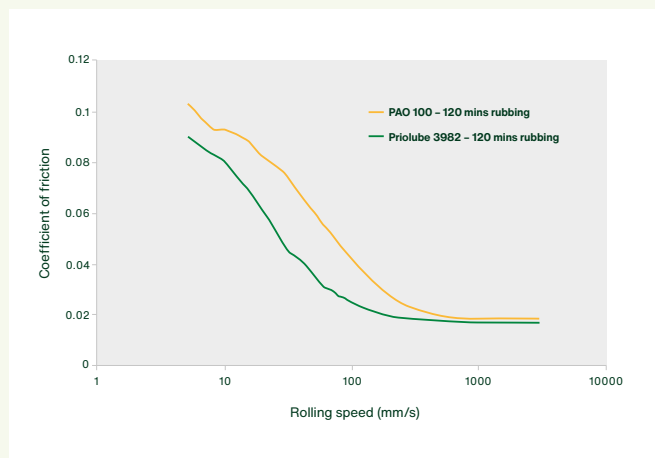
Priolube™ 3982 enables the formulation of ISO VG 68-460 gear oils with up to 25% less thickener compared to PAO 100, without compromising viscosity or durability.

Improved efficiency



By delivering traction reduction in Group IV base oils, Priolube™ 3982 improves power transmission efficiency and lowers energy losses.

Reduced friction



Proven lower friction in boundary and mixed lubrication regimes extends gear life and minimizes maintenance downtime.

Shear stability

Product	Base oil	Treat rate/% w/w	KV40	KRL viscosity loss/%
Priolube™ 3982	PAO 4	17	68	3.1
Priolube™ 3982	PAO 6	36	150	1.9

KRL shear stability tests confirm minimal viscosity loss after 20 hours, ensuring consistent lubrication performance and long-term protection under severe mechanical stress in heavy-duty gear applications.

Learn more at cargill.com/priolube-3982
or email energy_technologies@cargill.com

