

BIOBLEND PPL



Overview: BioBlend PPL is a readily biodegradable lubricant for the plunger packing in positive displacement reciprocating pumps, such as triplex and quintuplex pumps used in oil and gas hydraulic fracturing and cementing operations. It is formulated from renewable bio-based resources and contains no mineral oil or toxic additives, thus reducing environmental impact associated with the handling and use of lubricants in these operations.

Additionally, the blend of highly refined natural ester base oil and bio-based polymer in BioBlend PPL reduces friction compared to conventional mineral oil based lubricants, which translates to less wear and extended packing life.

Available in ISO grades 68, 100 and Arctic. *Arctic* has been additized to enhance cold weather mobility.

Physical Properties	PPL 68	PPL 100	PPL ARCTIC
ISO Grade	68	100	68
Specific Gravity	.91	.91	.89
Viscosity, ASTM D445 @40°C, cS	68	100	61
Viscosity, ASTM D445 @100°C, cS	11.2	18.1	10.9
Viscosity Index (VI), ASTM D2270	>200	>220	>190
Pour Point, ASTM D97, °F (°C)	-25 (-32)	-30 (-34)	-32(-36)
Flash Point, ASTM D92, °F (°C)	>600 (316)	>600 (315)	>590 (310)
Timken OK Load, ASTM D2509	>60lbs	>60lbs	>60lbs
Falex EP Fail Load, ASTM D3233	3500	3500	3500
Copper Corrosion, ASTM D4048	1A	1A	1A
Rust Test, ASTM D665, A & B	PASS	PASS	PASS
Biodegradability, OECD 301B, %	>75	>75	>75

Key Attributes:

- Helps ensure an effective seal between plunger and packing
- Excellent adhesion and resistant to wash-off
- Reduces friction and wear
- Readily biodegradable with ultra-low toxicity characteristics, reducing environmental impact
- Operator friendly