

QUANTUM® PERMILINE GEAR OIL 220

Description: This industrial gear oil is formulated with appropriate selection of high quality solvent refined and hydrotreated lube base stocks blended with an ashless sulfur-phosphorus type additive package. It is developed for lubrication of heavily loaded industrial gear drives operated at normal, medium and elevated stabilized oil temperatures. It is designated for the lubrication of heavily loaded closed gear boxes with straight and spiral bevel gears, spur gears, hypoid gears, worm gear drives. It has the following benefits:

- Very good antiwear and anti-seizure properties,
- Very good thermal and oxidation,
- Dependable corrosion protection,
- Seals compatibility,
- Good water separability

Application: This industrial gear oil is designated for the lubrication of heavily loaded closed gear boxes with straight and spiral bevel gears, spur gears, hypoid gears, worm gear drives.

Performance Level: ISO 6743/6 ISO-L-CKD, ISO 12925-1 CKC/CKD, DIN 51517 Part 3 (CLP), Cincinnati EP Gear Oils, AGMA9005-E02, David Brown S1.53.101 Type E, SEB 181 226

Typicals:	Density at 20°C, g/ml	EN ISO 3675	0,893
	Kinematic Viscosity at 40°C, mm ² /s	EN ISO 3104	220
	Viscosity Index	ISO 2909	91
	Flash point COC, °C	EN ISO 2592	258
	Pour point, °C	ISO 3016	-18
	Copper strip corrosion, 3h, 100°C	EN ISO 2160	1
	Water separability		
	-time to 3 ml emulsion,min	ISO 6614	30
	FZG EP Wear Test (A 8.3/90)		
	- Failure Load Stage	DIN 51354-2	12

Important note: typical data values do not constitute a specification but are an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved.

Health, Safety and Handling

Based on current available information, this product is not expected to produce adverse effects on health when used for the intended application. For more information about product MSDS, terms and conditions for storage and shelf life please visit: www.quantum-oils.com