



BIOMAX GEAR OIL

HIGH PERFORMANCE EAL GEAR OIL

BEYOND SYNTHETIC®

Royal Purple's BioMax EAL Gear Oil is an environmentally acceptable, high performance lubricant formulated for those users of gear oil products in marine applications affected by the 2013 Vessel General Permit (VGP).

BioMax Gear Oil provides excellent performance for use in sensitive environments such as thrust gears, steering gears, stern tube and other marine related services.

The long life and high film strength of BioMax Gear Oil greatly increases equipment reliability as well as provides excellent protection in highly corrosive environments. It gains its performance advantage over competing oils through its superior blend of base oils plus Royal Purple's proprietary Synerlec® additive technology. This unique, synthetic additive technology is proven to make bearings and equipment run smoother, cooler, quieter, longer and more efficiently.

SYNERLEC® ADDITIVE TECHNOLOGY MAKES THE DIFFERENCE!

Synthetic oils enable Royal Purple to make superior lubricants, but it is Royal Purple's advanced Synerlec additive technology that gives its lubricants their amazing performance advantages. Synerlec additive technology truly is beyond synthetic.

Synerlec additive technology forms a tough, slippery, synthetic film on all metal surfaces. This proprietary film significantly improves lubrication: first, by increasing the oil film's thickness, and second, by increasing the oil film's toughness, both of which help to prevent metal-to-metal contact. It displaces moisture from metal surfaces and protects all metals against rust and corrosion. It also fortifies the oil against the detrimental effects of heat, which causes oil to oxidize.

PERFORMANCE ADVANTAGES

High Film Strength

Royal Purple's BioMax EAL Gear Oil with Synerlec additive technology protects gear components beyond the ability of other environmentally friendly gear oils.

Longer Oil Life

BioMax EAL Gear Oil has outstanding oxidation stability and keeps equipment clean.

Excellent Corrosion Protection

Royal Purple's BioMax EAL Gear Oil with Synerlec additive technology's tough oil film forms an ionic bond on metal surfaces. This film not only protects during operation and acts as a preservative oil during shutdown, but it also provides instant lubrication upon startup to prevent wear.

Improved System Performance

BioMax EAL Gear Oil frequently lowers operating temperatures and restores smooth, consistent performance to erratically operating gear systems.

Rapidly Separates From Water

BioMax EAL Gear Oil rapidly and completely separates from water, which can easily be drained from the bottom of oil reservoir to keep the oil dry.

Synthetic Solvency

BioMax EAL Gear Oil's natural solvency cleans up dirty equipment and keeps it clean.

Compatible with Seals

BioMax EAL Gear Oil has excellent seal compatibility.

		ISO GRADE					
Typical Properties*	Method	100	150	220	320	460	680
Density @ g/cm ³	D4052	0.901	0.9242	0.9451	0.9204	0.9333	0.9477
Viscosity	D445						
cSt @ 40°C		100	150	220	320	460	680
cSt @ 100°C		14.97	20.24	29.38	34.72	45.81	61.8
Viscosity Index	D2270	147	150	154	151	155	158
Flash Point, °F/°C	D92	474/246	474/246	490/254	470/243	474/246	480/249
Pour Point, °F/°C	D97	-54/-48	-54/-48	-49/-45	-27/-33	-27/-33	-22/-30
Copper Corrosion Test	D130	1A	1A	1A	1A	1A	1A
Steel Corrosion Test	D665B	No Rust	No Rust	No Rust	No Rust	No Rust	No Rust
Elastomer Compatibility	DIN 51517	PASS	PASS	PASS	PASS	PASS	PASS
Demulsibility Test	D1401	40/40/0 (20)	42/38/0 (20)	41/39/0 (35)	43/37/0 (40)	43/37/0 (50)	43/37/0 (50)
Foam Characteristics	D892						
Seq I		0/0	0/0	0/0	0/0	0/0	0/0
Seq II		0/0	0/0	0/0	0/0	0/0	0/0
Seq III		0/0	0/0	0/0	0/0	0/0	0/0
Oxidation Characteristic	D2893	0.14%	0.51%	0.46%	0.58%	0.20%	0.26%
Load Wear Index, kg	D2783	51.7	48.5	57.63	55.81	56.23	56.84
Weld Load, kgf	D2783	250	250	315	315	315	315
Last Non-Seizure, kgf	D2783	80	100	100	100	100	100
Biodegradability	OECD 301B	> 60%	> 60%	> 60%	> 60%	> 60%	> 60%

*Properties are typical and may vary.