



# SYNERGY WORM GEAR

HIGH-PERFORMANCE SEVERE SERVICE WORM DRIVE GEAR OIL

Synergy Worm Gear Oil contains slippery synthetic molecules plus special anti-wear additives to provide the lubricity and oiliness properties necessary to excel in worm gear lubrication. Both oils utilize a dense, high molecular weight, synthetic cushioning additive that protects against fatigue failure from sudden shock loads. Royal Purple's worm gear oils are noncorrosive to both ferrous and nonferrous metals. (Note: Worm gear manufacturers state that Sulfur-Phosphorous EP gear oils can cause rapid deterioration of bronze worm gears and should not be used). Their excellent oxidation stability and water separating properties extend oil drain intervals and prevent the formation of sludge that frequently occurs in wet gear boxes.

Synthetic oils enable Royal Purple to make superior worm gear lubricants, but it is Royal Purple's advanced

DynaGlyde additive technology that gives Royal Purple's EP worm gear lubricants their amazing performance advantages. DynaGlyde additive technology is truly beyond synthetic. DynaGlyde additive technology forms a tough EP lubricating film that is noncorrosive to both ferrous and nonferrous worm gears. It provides maximum protection for heavily loaded, sliding surfaces typically encountered in worm gear service. It provides extra protection for worm gears operating at slow speeds and under shock load conditions as well. DynaGlyde additive technology displaces water from metal surfaces and excels in protecting equipment in wet environments. It also fortifies the oil against the detrimental effects of heat, which causes oil to oxidize.

Synergy Worm Gear Oil is Textron / Cone drive approved.

## PERFORMANCE ADVANTAGES

**EXCELLENT WEAR PROTECTION** - DynaGlyde® additive technology and superior anti-wear chemistry dramatically reduces metal-to-metal contact, friction, and wear

**SHOCK LOAD PROTECTION** - Helps cushion and protect against fatigue failure in gears subjected to sudden shock loads

**EXCEPTIONAL CORROSION & RUST PROTECTION** - Prevents corrosion of ferrous and non-ferrous (yellow metal) components

**ENHANCED OXIDATION & THERMAL STABILITY** - Resists oil degradation and varnish formation for longer oil life

**OUTSTANDING SYSTEM PERFORMANCE** - Provides a wide operating temperature range and excellent shear stability

**EXCELLENT DEMULSIBILITY** - Rapidly separates from water, allowing free water to be drained from the system

**OUTSTANDING ELASTOMER COMPATIBILITY** - Will not harm seals designed for use with lubricating oils



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## TECHNICAL DATA

Property	Test Method	680	1000
SAE Grade	SAE J306	250	250
ISO Grade	ISO 3448	680	1000
AGMA Grade	--	8	8A
Viscosity @ 40°C, cSt	ASTM D445	680	1000
Viscosity @ 100°C, cSt	ASTM D445	46.2	61.6
Viscosity Index	ASTM D2270	116	120
Specific Gravity, @ 60/60°F	ASTM D4052	0.892	0.893
Flash Point, °C (°F)	ASTM D92	221 (430)	249 (480)
Pour Point, °C (°F)	ASTM D97	-33 (-27)	-29 (-20)
Cu Corrosion, 3hr @ 100°C	ASTM D130	1A	1A
Rust Preventing, Fresh Water	ASTM D665A	PASS	PASS
Rust Preventing, Salt Water	ASTM D665B	PASS	PASS
Demulsibility, @180°F	ASTM D1401	41/38/1 (15)	42/36/2 (15)

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