



## Product Application Sheet

# 76 Compounded Gear Oil

### COMPOUNDED WORM GEAR, STEAM CYLINDER, AND GAS COMPRESSOR OIL

*76 Compounded Gear Oil is a viscous lubricant compounded with fatty oil to provide superior lubrication for worm gear drives as well as steam cylinders and gas compressor cylinders. It is designed primarily for bronze-on-steel and other non-ferrous alloy worm gear sets where a non-corrosive oil is needed. The fatty oil provides extra oiliness and excellent lubricity to counter the effects of the sliding action of worm gear surfaces. This product meets AGMA D9005-D94 requirements for compounded worm gear oils.*

*76 Compounded Gear Oil is also recommended for the lubrication of cylinders of gas compressors handling wet gases, and for steam cylinders operating under wet steam conditions in non-condensing applications where relatively oil-free exhaust steam is required. It emulsifies with water to resist the washing effects of moisture and provide excellent sealing and protective lubrication. 76 Compounded Gear Oil 7 is recommended for moderate service where steam pressures do not exceed 150 psi and temperatures are between 340°F and 400°F. 76 Compounded Gear Oils 8 and 8A are recommended for steam pressures up to 300 psi and temperatures from 435 to 575°F.*

#### TYPICAL APPLICATIONS

Industrial worm gear drives made with non-ferrous alloys.

Slow speed, heavy-duty industrial reduction gear sets.

Equipment with slow moving, heavily loaded journal bearings.

Steam cylinder and valve lubrication where the steam is wet or saturated.

Gas compressor cylinder lubrication where wet hydrocarbon gases are handled.

Applications characterized by sliding motion under heavy pressures.

**CAUTION:** 76 Compounded Gear Oil is **not** recommended for lubrication of hypoid gears.

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#### RECOMMENDED FOR:

American Gear Manufacturers Association:

AGMA 7 COMP (ISO VG 460)

AGMA 8 COMP (ISO VG 680)

AGMA 8A COMP (ISO VG 1000)

Cone Drive/Textron (Approved):

AGMA #7 Compound, non-EP (ISO VG 460)

AGMA #8 Compound, non-EP (ISO VG 680)

AGMA #9 Compound, non-EP (ISO VG 1000)

Wet or saturated steam with pressures up to:

150 psi (ISO VG 460)

300 psi (ISO VG 680, 1000)

#### OUTSTANDING FEATURES

- ◆ Excellent lubricity to reduce friction and minimize wear caused by the rubbing and sliding action of worm gears
- ◆ Outstanding rust and corrosion protection
- ◆ Excellent foam resistance
- ◆ Non-corrosive to bronze or brass
- ◆ Excellent metal wetting ability and adhesiveness to minimize the washing effect of moisture
- ◆ Inherently good atomization characteristics for proper lubrication of steam cylinders
- ◆ Excellent service over a wide temperature range

## DESCRIPTION

76 Compounded Gear Oil is formulated with heavy paraffinic base oils and a high quality fatty oil. The fatty oil provides lubricity and enhanced load-carrying capacity to help minimize wear caused by the rubbing and sliding action of worm gear teeth. The combination of heavy-bodied base oils and fatty oil resists the washing effect of moisture, thereby assuring excellent sealing and protective lubrication in steam cylinder applications and in compressor cylinders handling wet gases.

76 Compounded Gear Oil provides excellent rust and corrosion protection as well as resistance to thermal degradation and foaming. It is non-corrosive to steel and bronze. The acidless fatty oil forms less stable emulsions than some other fatty materials, permitting the use of this product in non-condensing steam cylinder applications that require relatively oil-free exhaust steam. This oil has a high viscosity index for use over a wide temperature range.

### TYPICAL INSPECTION TESTS:

	7 COMP	8 COMP	8A COMP
AGMA Grade .....	7 COMP	8 COMP	8A COMP
Grade, ISO .....	460	680	1000
Product Code .....	51500	51510	51520
Density, g/cm <sup>3</sup> @ 15°C .....	0.900	0.909	0.914
Color, ASTM .....	D 8.0	D 8.0	D 8.0
Flash Point, COC, °C (°F) .....	316 (600)	316 (600)	330 (625)
Pour Point, °C (°F) .....	-6 (21)	-6 (21)	-6 (21)
Viscosity			
cSt @ 40°C .....	460	685	956
cSt @ 100°C .....	32.9	43.0	51.9
SUS @ 100°F .....	2,452	3,676	5,171
SUS @ 210°F .....	161	209	252
Viscosity Index .....	105	105	102
Copper Corrosion, ASTM D130 .....	1A	1A	01A
Foam Test, ASTM D892 .....	Pass	Pass	Pass
Rust Test, ASTM D665A & B .....	Pass	Pass	Pass
Fatty Oil, vol % .....	5.0	5.0	5.0