



LUBRICANTS

PowerDrive® Synthetic All Season TO-4 Fluid

Phillips 66® PowerDrive Synthetic All Season TO-4 Fluid is a premium quality, synthetic, multi-functional fluid developed for use in transmissions, final drives and hydraulic systems of off-highway equipment where a fluid meeting Caterpillar TO-4 performance requirements is specified. It is a multigrade fluid particularly recommended for equipment operating in very cold temperatures as well as year-round service in most climates.

PowerDrive Synthetic All Season TO-4 Fluid is formulated with synthetic base stocks and state-of-the-art additive technology that reduces deposits on critical parts, provides improved yellow metal protection, and increases load-carrying capacity for enhanced performance and more reliable operation. Its carefully optimized frictional properties prevent clutch slippage for smoother, more consistent transmission operation and also provide improved wet brake performance. The synthetic base stocks provide improved low-temperature performance for easier starting in frigid climates and better thermal stability at high temperatures for extended lubricant life under severe operating conditions.

Applications

- Powershift transmissions, hydrostatic transmissions, torque converters, final drives and hydraulic systems of Caterpillar, Euclid, Komatsu and other off-highway construction and mining equipment
- Heavy-duty automatic transmissions where the OEM specifies an Allison C-4 quality fluid
- Heavy-duty manual and semi-automatic transmissions in trucks and buses where the OEM specifies a Caterpillar TO-4 quality fluid or a heavy-duty engine oil

CAUTION: Refer to the OEM recommendations for recommended temperature ranges.

PowerDrive Synthetic All Season TO-4 Fluid meets or exceeds the requirements of:

- Caterpillar TO-4

**Synthetic
Multigrade
Caterpillar
TO-4 Fluid for
Off-Highway
Equipment**

KEEPING THE
WORLD
RUNNING
SMOOTHLY. 



Features/Benefits

- Synthetic formulation for enhanced performance in arctic temperatures
- Well-balanced frictional properties for smooth and efficient clutch operation
- Outstanding oxidation resistance and thermal stability for long fluid life
- High load-carrying capacity for protection of final drive gear sets
- Excellent deposit control and wear protection
- Protects yellow metals against corrosion
- High shear stability
- Compatible with a wide variety of seals and friction materials
- Excellent low-temperature properties for easier starting at low ambient temperatures
- Good foam resistance
- Suitable for year-round use in most climates

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Typical Properties		
SAE Grade	5W-30	10W-30
Specific Gravity @ 60°F	0.863	0.860
Density, lbs/gal @ 60°F	7.2	7.11
Color, ASTM D1500	2.7	2.7
Flash Point (COC), °C (°F)	230(446)	268(514)
Pour Point, °C (°F)	-50(-58)	-44(-47)
Viscosity, Brookfield		
cP @ -35°C	11,600	24,950
cP @ -40°C	25,400	
CCS, cP @ (°C)	4523 (-30)	4679 (-25)
MRV, cP @ -35 °C	10,600	19,259
Viscosity, Kinematic		
cSt @ 40°C	52.8	58.6
cSt @ 100°C	10.6	9.8
Viscosity Index	196	152
Total Base Number (TBN), ASTM D2896	7.6	7.6
Zinc, wt %	0.110	0.110

Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via <http://www.phillips66.com/SDS>