



Product Data Sheet



Powertech TO-4 Fluid

TO-4 Final Drive & Power Shift Transmission

Powertech TO-4 meets the stringent requirements of Caterpillar TO-4 and Allison C-4 specifications. It is also recommended for use in Caterpillar equipment requiring TO-4 fluids and equipment requiring C-4 fluids. TO-4 specifications were developed to increase the performance life of transmission and drive components of caterpillar equipment.

Powertech TO-4 is blended with selected paraffin base stocks fortified with additives designed to inhibit foaming, corrosion and oxidation. Pour point depressant additives also provide low temperature characteristics that aid in starting mobile equipment. This product supersedes and includes the C-2/C-3 Allison specifications and assures top performance of the machinery for which this product is recommended.

Product Features:

- Controlled friction performance with seven friction materials, both metallic and nonmetallic
- Stable friction characteristics, eliminating the problems of excessive brake noise, weakening of the binder in paper materials, and embrittlement of elastomeric materials
- Exceeds wear requirements of Caterpillar TO-4

Customer Benefits:

- Eliminates clutch slippage
- Excellent oxidative stability and sludge control
- Excellent low-temperature fluidity
- Excellent shear stability
- Maximum foam protection

Specifications and Approvals	Royal Powertech TO-4
Caterpillar TO-4	✓
Allison C-4	✓

Applications:

- Caterpillar and Allison final drive & power shift transmissions





Typical Properties

Powertech TO-4 Fluid

Product Number	215	214	216	217	218	Test Method
SAE Grade	10	20	30	50	MULTI-VIS	-
API	29.72	28.3	27.29	26.25	29.1	-
Flash Point °C	210	220	239	286	410	ASTM 092
Pour Point °C	-24	-24	-18	-21	-35	ASTM D97
ASTM Color	<4.0	<4.0	<4.5	<5.0	4.5	ASTM D1500
Viscosity@100°C, cSt	6.3	7.5	11.4	19	14.3	ASTM 7042
Viscosity@40°C, cSt	38.88	55.3	98.69	225	106	ASTM D445
Viscosity Index (VI)	105	100	100	95	139	-

These properties are typical of the current production. Variations that do not affect product performance are to be expected depending on blending and manufacturing locations. The information above is subject to change without notice.

Health and Safety:

This product is unlikely to have any adverse health implications or safety hazards when used for its intended application. Avoid contact with skin, use resistant gloves when handling used oil. If skin comes in contact wash immediately with soap and water. For complete information on safe handling and product characteristics please refer to the Material Safety Data Sheet (MSDS) found on our website. www.royalmfg.com or call (918)-584-2671.

Packaging options:



5 Gal Pails



55 Gal. Drums



275/330 Gal Totes



>2000 Gal Bulk