

PRODUCT DATA SHEET

Royal Powertech TO-4 Fluid

TO-4 FINAL DRIVE & POWER SHIFT TRANSMISSION



PRODUCT DESCRIPTION:

Royal Powertech TO-4 Fluid 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.

Royal Powertech TO-4 Fluid 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.

KEY 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

APPLICATIONS:

Caterpillar and Allison final drive & power shift transmissions

PACKAGING:

Drums, Totes, Pails and Quarts

SPECIFICATIONS AND APPROVALS:

Caterpillar TO-4 and Allison C-4 specifications

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Typical Properties

Powertech TO-4 Fluid				
Product Number	214A	215B	216D	Test Method
API	28.3	29.72	27.29	-
Specific Gravity@60°F	0.88547	0.8777	0.89109	ASTM 4052
Lbs/Gal	7.374	7.31	7.421	
Density	0.88497	0.87721	0.89059	
Flash Point@°C	220	210	239	ASTM D445
Pour Point@°C	-24	-24	-18	ASTM D97
ASTM Color	<4.0	<4.0	<4.5	ASTM D1500
Viscosity@40°C, cSt	7.5	6.3	11.4	ASTM D445
Viscosity@100°C, cSt	55.3	38.88	98.69	ASTM D445
Viscosity Index (VI)	100	105	100	

Typical Properties are typical of those obtained with normal production tolerance and do not constitute essentially a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice.

Health and Safety:

When used for its intended application, this product is not expected to have any adverse health implications. For complete information on safe handling, as well as physical and chemical characteristics please refer to the Material Safety Data Sheet (MSDS) found on our website, www.royalmfg.com, or call 918-584-2671. Do not use this product for purposes other than its intended use. Please be responsible to the environment when disposing of used product.