

TRADO

Transmission and Drive Train Oil

TRADO is a high quality transmission and drivetrain lubricant, specially formulated from premium quality base stocks blended with well-balanced chemical formulations of extreme pressure and dispersant additives to meet the requirements of the TO-4 specification. It provides optimum performance while providing protection for all components of heavy-duty off road equipment, minimizes scuffing and scoring of gear surfaces under high speed operations, provides smooth brake operations, and reduces wear on gears to extend machine life.

Product Applications:

- Power shift transmissions, hydraulic systems, and wet brake compartments of light- to heavy-duty vehicles requiring TO-4 classification, medium- to heavy-duty trucks, heavy-duty on- and off-road vehicles, and off-highway equipment used for construction and mining

Performance Benefits:

- Stable friction characteristics that reduce brake noise and eliminate slippage of clutch, experienced in heavy loads
- Excellent performance for gears, bearings, and friction disc materials for longer clutch life
- Excellent thermal stability and low temperature fluidity performance
- Advanced yellow-metal protection to prevent bronze transfer in hydraulic cylinders
- Excellent EP and anti-wear properties for protection of slideway and gear components

Performance Level:

- Meets:** Allison C-4 ; Allison TES-439 ; Caterpillar TO-4, Caterpillar TO-4M, Caterpillar TO-2 ; Komatsu KES 07.868.1 ; ZF TE-ML 07D

TYPICAL SPECIFICATIONS:				
Test Parameters	Test Method	Results		
SAE Viscosity Grade		10W	30	50
ISO Viscosity Grade		46	100	220
Kinematic Viscosity @ 40°C, cSt	ASTM D7042	43	97	210
Kinematic Viscosity @ 100°C, cSt	ASTM D7042	6.47	11.1	18.7
Viscosity Index	ASTM D2270	100	100	99
Density, kg/L	ASTM D4052	0.876	0.893	0.897
Flash Point, °C	ASTM D3828	205	220	235
Pour Point, °C	ASTM D97	-34 (min)	-18 (min)	-12 (min)
Calcium, % wt.	ASTM D5185-13	0.280	0.280	0.280
Zinc, % wt.	ASTM D5185-13	0.129	0.129	0.129
TBN, mg KOH/g sample	ASTM D4739	8.4	8.4	8.4

The information contained herein is correct to the best of our knowledge. The recommendation and suggestion contained in this bulletin are made without guarantee of representation as a result. We suggest that you evaluate our recommendations and suggestions in your own laboratory prior to use. Our responsibility for claims arising from breach or warranty, negligence, or otherwise, is limited to the purchase price of the material.

CHEMICAL ALLOY CORPORATION