



Product Name: Transmission Fluid TO-4 30

Application: High-Performance Mineral-Based Transmission Fluid

Viscosity Grade: SAE 30

Specification Level: Caterpillar TO-4

Drain Interval: As per OEM recommendation (typically 250–500 hours in off-highway equipment)

Product Overview

Transmission Fluid TO-4 30 is a robust, high-quality **monograde mineral transmission oil** engineered to meet the strict performance standards of **Caterpillar TO-4**. It ensures precise friction control, optimized clutch performance, and outstanding wear protection for gears and hydraulics in heavy-duty equipment. Formulated with **high-quality base oils** and **advanced anti-wear, friction-modifying, and oxidation-inhibiting additives**, it provides:

- Superior transmission life
- Consistent brake performance
- Extended oil change intervals under severe working conditions

Application

Transmission Fluid TO-4 30 is specially designed for use in **powershift transmissions, final drives, wet brakes, and hydraulic systems** of off-highway equipment requiring **Caterpillar TO-4** performance. It is suitable for use in **earthmoving, construction, mining, and agricultural machinery**.

Performance Benefits

- **TO-4 Approved Friction Performance**
Delivers proper clutch engagement and gear shifting in powershift and manual transmissions.
- **Anti-Wear Protection**
Safeguards against gear pitting and bearing wear in final drives and transmission systems.
- **Brake Noise Reduction**
Controls wet brake chatter and ensures smooth, quiet braking.
- **Thermal & Oxidation Stability**
Maintains performance under high-load, high-temperature operation.
- **Hydraulic System Compatibility**
Provides reliable performance in combined transmission-hydraulic systems.

Meets and Approvals

- Caterpillar TO-4
- Komatsu KES 07.868.1
- Allison C-4 (non-on-highway use)
- May also be used where former Caterpillar TO-2 fluids were specified





Typical Properties

Property	Method	Typical Value
Appearance	Visual	Bright & Clear
Density @ 15°C	ASTM D4052	0.889 g/cm ³
Kinematic Viscosity @ 40°C	ASTM D445	98 – 105 mm ² /s
Kinematic Viscosity @ 100°C	ASTM D445	11.0 – 12.5 mm ² /s
Viscosity Index	ASTM D2270	≥95
Flash Point (COC)	ASTM D92	≥240°C
Pour Point	ASTM D97	-18°C
Copper Corrosion	ASTM D130	1b
FZG Gear Test	DIN 51354	Pass (Stage ≥12)
Foam Test (Seq I/II/III)	ASTM D892	Pass
Shear Stability	ASTM D6278	Excellent
Rust Protection	ASTM D665 A/B	Pass

Storage and Handling

- Store in a cool, dry place away from direct sunlight and temperatures above 60°C.
- Ensure containers are sealed to prevent contamination.
- Avoid mixing with other oils to maintain full performance

