



Product Name: Transmission Fluid TO-4 40

Application: High-Performance Mineral-Based Transmission Fluid

Viscosity Grade: SAE 40

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 40 is a robust **monograde mineral transmission oil** formulated with carefully balanced **additives for wear protection, friction control, and thermal stability**. It delivers optimized clutch engagement, minimized brake chatter, and long fluid and equipment life.

Designed to:

- Meet Caterpillar's TO-4 specifications
- Prevent gear and bearing wear under heavy loads
- Provide superior film strength and resistance to viscosity breakdown in hot climates
- Ensure noise-free brake and transmission operation

Application

Transmission Fluid TO-4 40 is specifically engineered for use in **powershift and manual transmissions, final drives, torque converters, and hydraulic systems** in construction, mining, and off-highway equipment requiring Caterpillar TO-4 performance at higher viscosity.

Recommended where **SAE 40 grade** is required in warm or extreme working conditions for heavy-duty equipment such as loaders, bulldozers, graders, and dump trucks.

Performance Benefits

- **TO-4 Frictional Control**
Maintains consistent clutch engagement and prevents slippage in powershift systems.
- **High-Temperature Protection**
SAE 40 grade resists viscosity thinning and provides a thick, stable oil film.
- **Extended Gear Life**
Protects against wear, pitting, and scuffing of gears and final drives.
- **Improved Brake Performance**
Reduces wet brake noise and vibration, ensuring smoother operation.
- **Oxidation & Rust Resistance**
Helps extend drain intervals by resisting oil degradation and component corrosion.

Meets and Approvals

- Caterpillar TO-4
- Komatsu KES 07.868.1
- Allison C-4 (off-highway only)
- May also be used where TO-2 was previously specified





Typical Properties

Property	Method	Typical Value
Appearance	Visual	Bright & Clear
Density @ 15°C	ASTM D4052	0.892 g/cm ³
Kinematic Viscosity @ 40°C	ASTM D445	145 – 160 mm ² /s
Kinematic Viscosity @ 100°C	ASTM D445	14.5 – 16.0 mm ² /s
Viscosity Index	ASTM D2270	≥95
Flash Point (COC)	ASTM D92	≥245°C
Pour Point	ASTM D97	-18°C
FZG Load Stage	DIN 51354	Pass (Stage ≥12)
Copper Corrosion	ASTM D130	1b
Foam Sequence I/II/III	ASTM D892	Pass

Values above are typical and may vary slightly depending on production batch

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

