

G-Special TO-4 10W, 30, 50

UNIVERSAL Versatility of application

POWERSHIFT Powershift transmissions



Hydraulic systems



Enhanced frictional properties



Stable viscosity



High anti-wear protection



High-quality mineral base oils

G-Special TO-4 10W, 30, 50 – a series of transmissions and hydraulic fluids based on the high-quality base stocks and designed for off-road, mining, construction and other equipment. Specially formulated for highly loaded powershift transmissions, hydraulic systems and oil-immersed brakes in order to meet requirements of Caterpillar, Komatsu and other equipment manufacturers. Fluids have excellent frictional properties and anti-wear protection of working surfaces of the mechanisms.

Application



- Mining and construction equipment, including Caterpillar, Komatsu.
- For off-road equipment, where Caterpillar TO-4 specification fluids are required.
- Designed for use in powershift transmissions, hydraulic systems, oil-immersed brakes and clutches (SAE 10W, SAE 30).
- Possible to use in final drives, power takeoff systems, differential units (SAE 50).
- Not applicable for units where UTTO oils are specified.

Advantages/Potential benefits

G-Special TO-4 series of oils with the increased level of anti-wear additives allows to provide high efficiency of transmissions and hydraulic systems under severe operating conditions:

Characteristics	Advantages/Potential Benefits
Stable frictional properties	Ensuring of smooth operation of clutches and brakes – reliable equipment operation.
High oxidation stability	Corrosive acids formation minimizing – service life maintaining of the equipment parts.
Good anti-wear capability	Hydraulic drives and gears protection – repair cost reduction.
High viscosity stability	Maintaining of viscosity characteristics during operation - reliable lubrication of working surfaces.
Compatibility with the sealing materials	Inertness to sealing materials helps to minimize leaks – lubricant costs reduction.
Versatility of application	Possibility of application in hydraulic systems and transmission units – saving space and storage costs.

Typical physical and chemical characteristics

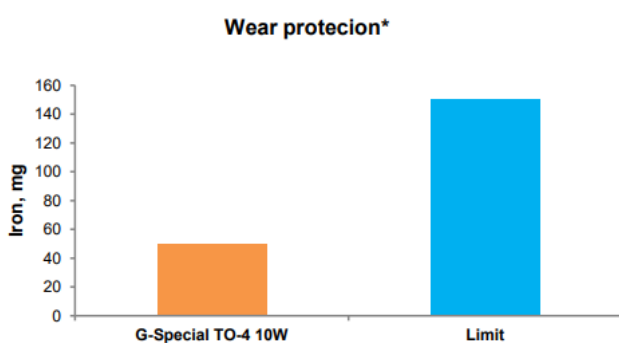
Parameters	Value			Method
	10W	30	50	
Kinematic Viscosity @100°C, mm²/s	6,6	11,5	20,0	ASTM D445
Viscosity index	123	101	97	ASTM D2270
Brookfield dynamic viscosity @ -35°C, mPa*s	20650	-	-	ASTM D2983
Brookfield dynamic viscosity @ -25°C, mPa*s	-	60900	-	ASTM D2983
Brookfield dynamic viscosity @ -15°C, mPa*s	-	-	64830	ASTM D2983

Flash Point (COC), °C	241	247	258	GOST 4333
Pour Point, °C	-45	-29	-21	GOST 20287 (B)
Density @ 15 °C, kg/m ³	867,1	891,5	904,7	ASTM D4052

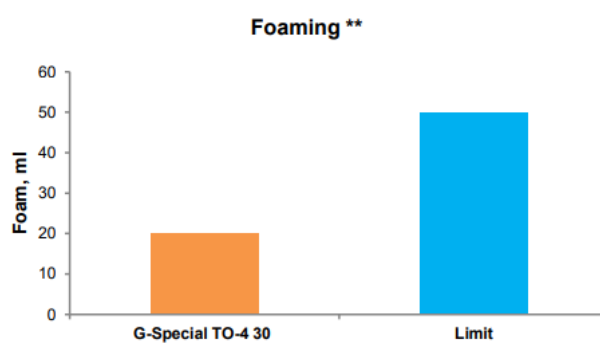
Specifications

- Caterpillar TO-4
- Allison C-4
- Komatsu KES 07.868.1
- ZF TE-ML 03C, 07F (G-Special TO-4 30, 50)

Transmission - hydraulic fluids **G-Special TO-4 10W, 30, 50** exceed the requirements of the main specifications according to the tests:



G-Special TO-4 10W helps to minimize wear of gear teeth and maintains their service life.



Low foaming tendency of G-Special TO-4 30 allows to increase the productivity of the hydraulic system.

*FZG wear test, **ASTM D892 test.

The company's management system is certified in accordance with the international standards

ISO 9001



ISO 14001



ISO 45001

