

# Technical Datasheet

# TO-4 Series

#### Description

Monograde lubricants designed for modern transmissions, final drives, hydraulic systems and immersed brakes. They meet the requirements of the caterpillar TO-4 specification.

# Application

TO-4 series is suitable for use in modern heavy-duty off-road machinery transmissions, final drives, hydraulic systems and oil immersed brakes.

## **Operation Characteristics**

- Reliable friction performance
- Resistance to oxidation at high temperatures
- Excellent dispersion of lubricant on metal surfaces
- Protection against creating combustion residues
- Excellent performance at low temperatures
- Excellent detergency

#### **Specifications, Approvals, Recommendations**

CAT TO-4 & TO-2, COMATSU, ALLISON C-4, API CF-2

#### **Typical Physical Characteristics**

	ASTM	10W	30	50
SPECIFIC GRAVITY (kg/lt)	D 1298	0,875	0,894	0,898
VISCOSITY AT 40°C (cSt)	D 445	43	114	196
VISCOSITY AT 100°C (cSt)	D 445	6,5	12,4	17,5
VISCOSITY INDEX	D 2270	100	99	96
FLASH POINT (°C ) min.	D 92	215	240	260
POUR POINT (°C)	D 97	-33	-24	-18
TBN	D 2896	10	10	10

These are typical values. Small variation should be expected for future productions / blendings

## Health, Safety and Environmental Protection

It is unlikely to cause any significant problem to the health or safety of the user when used properly, according to the typical handling of lubricating and usual personal hygiene practices. The used lubricants must be recycled in accordance with applicable legislation and placed in approved collection points. Do not discharge into drains, soil or water / sea. Always follow the instructions of the safety data sheet.