

# Castrol Molub-Alloy 936 SF

Open gear lubricant

## Description

CASTROL MOLUB-ALLOY™ 936 SF is a uniquely compounded open gear lubricant developed specifically for use on heavy-duty equipment in mining and industrial service. It forms a tough lubricating film on the friction surfaces which is resistant to pressure and shock loads as well as unfavorable ambient conditions.

The structural integrity and strength of the lubricating film is particularly valuable in the critical process of running in new gears because of the natural occurrence of high spots (asperities) in newly machined surfaces. The lubricating film must separate the mating surfaces sufficiently to cushion the effect of the impact of asperities, and thus minimize initial pitting which could lead to progressive and destructive pitting later.

- A highly refined, viscous, paraffinic petroleum derivative is the foundation of a blended base fluid with excellent natural chemical and thermal stability. CASTROL MOLUB-ALLOY™ 936 SF is compounded to flow readily in the film-forming process, yet it resists "squeeze-out" and clings tenaciously even to gear teeth in vertical orientation.
- A proprietary blend of CASTROL MOLUB-ALLOY™ lubricating solids is included in particle sized suitable for open gears to promote antiwear properties.
- Rust and oxidation inhibitors are included in the formulation to protect the equipment and the lubricating film against the elements in severe climates.

## Application

- All types of open gears, rails and rollers, racks and pinions, dipper sticks and other slides and shovels and draglines.
- CASTROL MOLUB-ALLOY™ 936 SF may be applied via automatic lubricating systems. With the adequate equipment CASTROL MOLUB-ALLOY™ 936 SF can be pumped at temperatures down to 0°C. In case no automatic systems are available CASTROL MOLUB-ALLOY™ 936 SF can also be applied manually.

## Advantages

- CASTROL MOLUB-ALLOY™ 936 SF forms a tough, durable lubricating film with a "cushioning" effect, even under extreme pressure and at very low speeds.
- resistant lubricating film to resist weather in severe climates
- easy and economic application of an adhesive lubricating film via automatic dispensing equipment over a wide temperature range
- CASTROL MOLUB-ALLOY™ 936 SF was formulated as solvent-free lubricant and is also free of lead, antimony and barium

## Typical Characteristics

Test	Method	Unit	Value	
CASTROL MOLUB-ALLOY™ 936 SF	-	-	LIGHT	HEAVY
DIN classification	DIN 51502	-	OGPF 0 G-20	OGPF 0 G-10
NLGI grade	DIN 51818	-	0	0
Specific gravity at 15.6°C	ASTM D 1298	kg/m <sup>3</sup>	960	950
Worked penetration	DIN ISO 2137	0.1 mm	355 - 385	355 - 385
Base oil properties				
Viscosity				
at + 40°C	DIN 51366	mm <sup>2</sup> /s	630	1660
at + 100°C			36	52
Flash point	DIN ISO 2592	°C	160	160
Four ball EP test				
Load wear index	ASTM D 2596	-	> 120	> 120
Weld load		N	> 8000	> 8000
Timken EP test				
OK value	ASTM D 2509	kg	20,5	20.5
Pumpability, Lincoln Ventmeter at 0°C	-	psi	< 300	400
Flow pressure				
at 0°C	DIN 51805	hPa	< 100	390
at - 20°C			400	< 1200
at - 10°C			-	600

1 mm<sup>2</sup>/s  $\hat{=}$  1cSt

## Additional Information

- Automatic dispensing systems should be monitored for their operability when temperatures are expected to drop to freezing point.

Lubrication intervals should only be extended gradually to remove previous lubricant and establish a film of CASTROL MOLUB-ALLOY™ lubricating solids.

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