



Product Data

Castrol Optipit®

Description

Castrol Optipit® - brownish, transparent tacky grease based on lithium-12-hydroxystearate with extremely high oil viscosity.

Microflux Trans® (TRANS=Triple Action Non-sacrificial Surface engineering) improves friction surfaces to an extent not possible with normal machining processes and conventional EP lubricants. In a tribological system, the polarized **Microflux Trans®** additives instantaneously create a passive film on friction surfaces before friction occurs. At a given load level, the **Microflux Trans®** additives release compounds forming a resistant protective layer on friction surfaces. Under severe load, components of the **Microflux Trans®** additive combination are activated and diffuse into the surfaces initiating an improvement of their friction characteristics through plastic deformation. The organic reaction products become a component of the tribopolymer system.

Unlike the case with conventional lubricants, the tribopolymers formed by **Microflux Trans®** are long-chained compounds with excellent lubricity and adhesion.

The load carrying area is improved, a hydrodynamic lubrication film is easier to maintain. This unique physio-chemical reaction is Castrol surface engineering and achieves a non-sacrificial micro-smoothing of the friction surfaces.

The **Microflux Trans®** additive technology provides optimum wear protection and an extremely low coefficient of friction even under extremes of pressure, vibration, shock loads, at high or low speeds or varying operational conditions.

Optipit® builds up a stable grease collar at the bearing edges, supporting the seals to prevent penetration of dirt, water and other contaminations.

Optipit® enables a hydrodynamic lubricating film even at low speeds.

Castrol Optipit®
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All reasonable care has been taken to ensure that the information contained in this publication is accurate as of the date of printing. However, such information may, nevertheless, be affected by changes in the blend formulation occurring subsequent to the date of printing. Material Safety Data Sheets are available for all Castrol Industrial Australia products. The MSDS must be consulted for appropriate information regarding storage, safe handling and disposal of a product.

Industrial Lubricants and Services - Australia. GPO Box 5222BB, Melbourne VIC 3001

Technical Advice Line 1300 557 998

www.castrol.com.au

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Page 1 of 3



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Advantages

- reduction of running-in period, suitable for lifetime lubrication
- surface improvement to an extent not possible before
- outstanding load carrying capacity
- optimum wear protection in high load range
- smoothing of existing pitting in damaged equipment is possible
- excellent corrosion protection, largely prevents fretting corrosion
- compatible with all conventional sealing materials and nonferrous metals
- good adhesion due to high oil viscosity
- water repellent
- good sealing properties
- suitable for operation under shock loads
- pumpable in central lubrication systems
- extended relubrication intervals in wet and dusty environments
- temperature range: -26°C/-15°F to 135°C/275°F

Usage

- Developed for lubrication of antifriction and plain bearings running at low RPMs:
- mining, especially open-pit mining
- lubrication of bearing surfaces and in particular of walking legs of cable dredges
- lubrication of friction surfaces exposed to weather, wet and dusty atmospheres
- bearings in the steel industry under heavy shock loads and vibration, at low speeds
- lubrication of antifriction bearings requiring extremely high oil viscosity due to their operating conditions
- equipment exposed to sea water, in harbours, on ships and drilling platforms

Benefits

Cost-benefit offered by **Microflux Trans**[®] additive technology extended lifetime of machine elements and wear parts, lower maintenance and labour costs by minimized wear and friction.

- full load operation within shortest time, virtually eliminating the running-in period
- lower costs for lubricants and waste oil disposal because of significant extensions of both service life and relubrication intervals
- energy savings due to reduced coefficient of friction, lower temperature of lubricant and component, improvement in operating efficiency
- product consolidation, i.e., simplification and reduction of lubes and spare parts, reduction of noise resulting from high frequency stick-slip for "life" lubrication in some applications.

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Page 2 of 3



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Typical Characteristics

	Value
Castrol Optipit®	
Consistency / NLGI Grade, DIN 51818	2 – 3
Color	Brown
Density, DIN 51757	
@ 20°C, g/cm ³	0.905
Thickener Type	Lithium
Base oil viscosity, ASTM D-445, mm ² /s 40°C	1350
Worked Penetration, ASTM D-217, mm/10	245 – 275
Worked Penetration difference, ASTM D-217, mm/10	
Pw 100,000 – Pw 60	14
Dropping point, ASTM D-2265	
°C	>250
Oil separation K, DIN 51817	
@ 40°C, 168 Ur, weight %	0.32
Flow pressure, DIN 51805	
@ -20°C, mbar	758
Corrosion protection, DIN 51802	
(SK F Emcor)	1
Copper corrosion protection, DIN 51811	
@ 100°C	0
Water resistance, DIN 51807 T.I.	
@ 90°C	0
SRV test – test mode 5ae:	
300N/50°C / ball / surface / 2h	
Coefficient of friction	.082
Wear, DIN E 51834	
ball/scar ø, mm	0.53
profile depth Pt, µm	1.2

Subject to Usual Manufacturing Tolerances

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Page 3 of 3