

The Long Life High Temperature Grease for the Packaging Industry



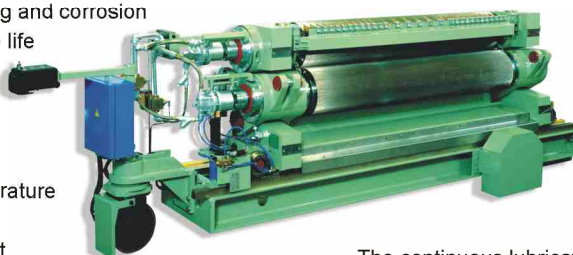
Turmotemp® LP 2502

High temperature, high bearing load and an aggressive environment require extraordinary lubricants. Turmotemp LP 2502 enables reliable bearing operation in complex corrugated board manufacturing machines.

Special High-Temperature Grease

Turmotemp LP 2502 is the first grease combining the superior long-term and high-temperature properties of per-fluorinated polyether (PFPE) with the excellent thickening capability and properties of a special high temp resistant Lithium soap. Due to this unique combination of thickener and high temp resistant base oil **Turmotemp LP 2502** has superior anti-corrosion resistance and outstanding wear protection. As a consequence up to **3 times longer bearing service life** has been experienced in practice.

- efficient protection against wear, fretting and corrosion
- enables 3 times longer bearing service life
- vibration and noise reduction
- lower friction torque, energy saving
- no hardening effects
- no oil separation effects
- no acidic vapors in case of over temperature
- no hazardous ingredients
- miscible with any PTFE/PFPE lubricant
- no special cleaning agents required, bearings can be cleaned with standard shop solvents, cost saving
- is compatible with elastomers, nonferrous or ferrous metals.



Improved Machine Reliability with Automatic Lubrication of High Temperature Bearings

Due to the homogenous structure of the **Turmotemp LP 2502**, automatic lubrication becomes available to high temperature bearings within the corrugated board manufacturing environment. Competitors greases with Teflon particle thickener, have the tendency to separate the oil from the thickener under pressure and consequently block any valves or progressive distribution blocks of central lubrication systems. LUBCON's smart automatic lubricator EasyMatic in combination with advanced technology high temperature lubricants contribute significantly to increased reliability and safety within the packaging industry.

The lubrication positions of the hot section corrugator bearings are often difficult to reach and can in many cases, only be lubricated by interrupting the manufacturing process. With automatic lubrication the actual frequency of lubricant refreshment as well as the accuracy of the lubricant replacement within the bearings is much higher. The bearings operate in significantly cleaner and better lubricated condition.

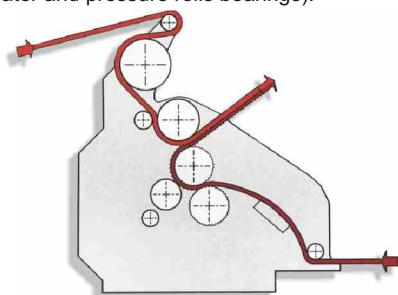
The continuous lubrication thus contributes to improved machine reliability, reduced downtime, cost saving and productivity.

Applications

Turmotemp LP 2502 is a long-term lubricant for any kind of rolling bearings operating at high temperatures and high loads. Compared with other lubricants, better wear protection can be expected for all ball bearings and in particular line contact bearings, e.g. spherical roller bearings, cylindrical roller bearings, taper roller bearings etc.

Turmotemp LP 2502 operates up to a bearing temperature of 500 °F and thus gives optimum protection for bearings of corrugated board machinery (cardboard production, pre-heater and pressure rolls bearings).

It is also used for chain return wheels and return roller bearings subject to high temperatures, loaded rollers in film stretching machines and textile stenters, low-speed high-temp electric motors, high temperature fan bearings and many other applications.



Corrugated board machine from FARO International GmbH

Technical Data	Turmotemp LP 2502
Color	light beige
Structure	homogeneous / creamy
Density 68 °F (20 °C)	approx. 1,7 g/cm ³
Service temperature range	-22 °F to 500 °F (-22 °C to 260 °C)
Consistency grade DIN 51818	2
Mechanical load Four-ball test	> 5500 N
Speed factor (n x dm)	500 000
Corrosion protection DIN 51802	0 / 0
Base oil	per-fluorinated polyether
Thickener	Lithium-special soap
Viscosity V _{40 °C (104 °F)}	250 cSt (mm ² /s)
Viscosity V _{100 °C (212 °F)}	26 cSt (mm ² /s)

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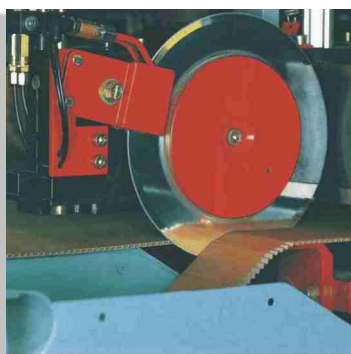
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Modern Lubricants for Best Machine Performance and Reliability

LUBCON's lubricants are used widely in the corrugated board industry and have significantly contributed to long term reliability and superior performance. The full range of lubricants, is available from a single source together with the most advanced lubrication systems.

Turmocut SR 15 is a lubricating oil based on high-purity hydrocarbons for the Slitter and Scorer from BHS. It is a combination of base oil and additives, which can be used in the food processing industry. It has very good surface wetting properties, shows excellent lubrication characteristics, dissolves starch and thus keeps the knives cleaner and sharper and provides additional life with less maintenance. The lubricant is H1 food grade approved.



Turmogearoil 460 OM is a solid-free high performance gear oil, containing a newly developed additive combination. For long-term lubrication under conditions exceeding the capability of conventional EP lubricants or oils with solid lubricants. LUBCON's active anti-wear additive combination was developed for optimum protection under severe load and a wide operating temperature range. For food grade packaging applications the NSF/H1 approved **Turmosynth VG 460** can be utilized.

Turmopast NBI 2 white is a light-coloured lubrication and assembly paste containing solid lubricants to reduce fretting corrosion as well as friction at low speeds or high vibration levels. Well balanced anti-wear and anti-corrosion additives provide excellent long term protection for any press fits like bearing-shaft or bearing-housing assemblies. Bearing assemblies, guide bushing, threads, fittings and many others are easier to disassemble due to excellent protection against fretting corrosion.

Turmofluid ED 13 is a synthetic lubricant for multipurpose use with excellent spreading capabilities on metallic surfaces. The water displacement behaviour and the high metal affinity of Turmofluid ED 13 will ensure an optimum lubrication and an excellent corrosion protection. Turmofluid ED 13 is used for the lubrication of machines as well as machine parts and chains, guide elements and many others.

LUBCON Products are Available in Various Types of Packaging!

All LUBCON products are OEM approved and available from stock in a large variety of packaging solutions, from 50 ml tubes, 400 ml (14 oz) cartridge up to 200l (55 gal) drums.

LUBCON's Support Goes Beyond Lubricants Only!

Advanced calculation methods have been developed to help the customer selecting the right lubricant in terms of optimum operating condition and grease service life. Training seminars for better understanding of bearing operation and lubrication technology have been composed and made available for maintenance personnel, engineering staff, designers etc.

Automatic lubrication devices are available to extend maintenance free operation. To enable better handling and disassembly of bearings, fittings and any clamping devices during overhaul assembly pastes have been developed and are available in a various range of packaging as well as aerosols.

- ✓ Grease service life program
- ✓ Relubrication quantity and interval calculation tool
- ✓ Training seminars
- ✓ Assembly pastes
- ✓ Cleaning spray LC 500
- ✓ Automatic lubrication devices from a single point lubricator to central lubrication systems with a maximum of 44 lubrication lines.

LUBCON Lubrication Systems



TLB 2000 - The automatic pin chain lubricator supplies accurate lubricant quantities with precise timing to conveyor chains. Optimum lubrication with Lubcon chain oils and accurate minimum oil quantities extends the chain life up to factor 3.



EasyMatic - The smart automatic lubricator for oils and greases for up to 22 lubrication positions (44 with two pump elements). Designed for automatic long term lubrication of machinery in industrial environments.



MicroMax 120 - Single point lubricator for automatic lubrication up to a maximum of 3 years. Can be used for any individual bearing, ball screws, gears, etc with a large variety of long life greases.



DuoMax 160 - Double point lubricator for maintenance free operation of e.g. electrical motors up to a maximum of 3 years. Can be also used for fan shaft bearings and many others with a large variety of long life greases.



Manual and Pneumatic Grease Pumps - A large variety of manual and pneumatic grease pumps and accessory is available to support proper handling of lubricants in industrial environment.

LUBCON Turmo®Lubrication, Inc.
Lubricants . Lubrication Engineering

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This brochure only contains product information. For specific information please refer to our technical data and safety data sheets. The indications made represent the present state of development and knowledge of LUBCON Turmo®Lubrication, Inc., which is subject to change without notification. The products are subject to severe controls of manufacture and comply in full with the specifications set forth by our company, but due to the multitude of different influencing factors, we cannot assume any warranty for the successful application in each individual case. Therefore, we recommend to perform field tests. We strictly refuse any liability.