# The Long Life High Temperature Grease for the Packaging Industry



# Turmotemp<sup>®</sup> 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 perflourinated polyether (PFPE) with the excellent thickening capability and properties of a special high temperature resistant Lithium soap. Due to this unique combination of thickener and high temperature resistant base oil, Turmotemp LP 2502 has superior anti-corrosion resistance and outstanding wear protection. As a consequence, up to three times longer bearing service life has been experienced in practice.

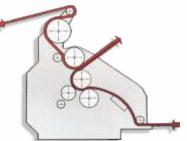
- efficient protection against wear, fretting and corrosion
- enables three times longer bearing service life
- vibration and noise reduction
- lower friction torque, energy saving
- no hardening effects
- no oil separation effects
- no acidic vapors in case of over temperature
- no hazardous ingredients
- 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.

## **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-temperature electric motors, high temperature fan bearings and many other applications.



Corrugated board machine from FARO International GmbH

# 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 thickeners, 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.

Technical Data		Turmotemp LP 2502
Color		light beige
Structure		homogeneous / creamy
Density	at 68 °F (20 °C)	approx. 1,7 g/cm³
Service temperature range		-22 °F to 500 °F (-30 °C to 260 °C)
Consistency grade		2
Mechanical load (Four-Ball Test)		> 5500 N
Speed factor		500 000 n x d <sub>m</sub>
Corrosion protection		0 / 0
Base oil		perflourinated polyether
Thickener		Lithium special soap
Viscosity	at 40 °C (104 °F)	250 cSt (mm²/s)
Viscosity	at 100 °C (212 °F)	26 cSt (mm²/s)

# Turmotemp<sup>®</sup> LP 2502 The Long Life High Temperature Grease for the Packaging Industry



## **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 highpurity hydro-carbons 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 knifes cleaner and sharper and provides additional life with less maintenance. The lubricant is InS/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 been 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-colored 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 such as 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 behavior 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, chains, guide elements and many others.

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.

Advanced calculation methods have been developed to help the customer select 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
- Lubrication 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

# **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 - Automatic lubricator for oils and greases up to 22 lubricating points (44 points with two pump elements). EasyMatic has been developed for automatic long term lubrication of machines in industrial environment.



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 maintenancefree operation of e.g. electric motors up to a maximum of 3 years. Can also be used for fan shaft bearings and many others with a large variety of long life greases.



Manual and pneumatic grease pumps - Alarge variety of manual and pneumatic grease guns and pumps with respective equipment are available to handle the lubricants in an industrial environment.

### **LUBRICANT CONSULT GMBH Lubricants • Lubrication Technology**

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2017-09-01

Release date: