



LUBCON[®] High Performance H1 Food Grade Lubricants





Terms and Definitions...



H1	Globally recognized term for food grade lubricants allowing incidental food* contact with maximum levels of lubricant presence as defined by the FDA (U.S. Food and Drug Administration).
H2	Term for lubricants NOT suitable for food* contact.
H3	Term for lubricants used as rust protective, e.g. for hooks, trolleys, knives etc. Residues on treated material must be wiped off prior to equipment use as they are NOT allowed for food* contact.
3H	Term for mould release lubricants allowing incidental food* contact with maximum levels of lubricant presence as defined by the FDA (U.S. Food and Drug Administration). Used e.g. on grills, loaf pans, cutters, boning benches, chopping boards, or other hard surfaces to prevent food from adhering during processing.
HX-1	Ingredients approved for the manufacturing of H1 lubricants.
HT1	Term for food grade heat transfer oils allowing incidental food* contact with maximum levels of lubricant presence as defined by the FDA.
A1	Term for general cleaner, NOT suitable for food* contact. Can only be used on equipment and machine parts in locations where there is absolutely no possibility of food* contact. Rinsing of cleaned surfaces with potable water is required after use of this product.
K1	Term for solvent cleaner, NOT suitable for food* contact. Usage is limited to non-processing areas where there is no possibility of solvent vapours entering a processing area. Any residues have to be removed from treated surfaces before they are applied for processing. No vapours of the cleaner are allowed to enter the processing area.
NSF and InS	Two organisations that internationally register lubricants according to categories such as H1, 3H etc. and list registered products on their websites.
FDA	U.S. Food and Drug Administration
USDA	United States Department of Agriculture
H.A.C.C.P.	Hazard Analysis of Critical Control Points is a clearly structured control tool for preventive measures. It is a methodology for defining and controlling present or potential hazards in food* production that might present a harm to consumers.
E.H.E.D.G.	European Hygienic Equipment Design Group is a consortium of OEMs, manufacturers, research institutes as well as public health authorities. The principal goal of EHEDG is the promotion of safe food by improving hygienic engineering and design in all aspects of food manufacture.

*also valid for other products e.g. beverages, animal feeds and food, pharmaceuticals, personal care products.

...Now Available as App

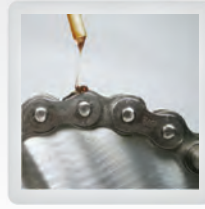


LUBCON H1 Lube Consultant

A useful mobile H1 advisor

- ✓ fast lubricant selection
- ✓ comprehensive information about H1 lubricants





LUBCON® - Full Service Provider for H1 Lubricants

LUBCON Service: Professional, Innovative and Flexible

As a full-service provider with extensive experience in application engineering, we assist you with the selection of suitable lubricants and lubrication methods to increase safety, efficiency and service life of your production machines.

LUBRICANT CONSULT

- ✓ special lubricants
(greases, oils, pastes, aerosols, cleaner)
- ✓ customised lubrication solutions
- ✓ automatic lubrication systems
- ✓ lubricant analysis
- ✓ bearing failure inspections
- ✓ calculation of lubrication quantities
- ✓ lubrication charts, labelling and colour coding
- ✓ reduction of stock items
- ✓ training for maintenance personnel and engineering



Lubricants and Lubrication Systems out of One Hand

By providing an ideal combination of high-performance H1 lubricants and lubrication systems for many applications we offer full support to achieve the following goals:

- ✓ lower costs
- ✓ improved safety
- ✓ higher reliability
- ✓ better performance
- ✓ increased efficiency
- ✓ decreased machine downtime



General Information on H1 Certification

What is a H1-certified Lubricant?

H1 is the globally recognized term for food grade lubricants allowing incidental food contact (also valid for other products e.g. pet food or pharmaceuticals) with defined maximum levels of the lubricant present. The limits for such an incidental contact as well as approved ingredients for H1 lubricants are defined by the FDA (U.S. Food & Drug Administration) in Regulation 21 CFR 178.3570. Registrations for lubricants according to H1 (and other categories such as H3, 3H, etc.) are issued by the international institutions InS Services and NSF. Products which are registered in various different categories are published on the websites of these two institutions (www.insservices.eu and www.nfswhitebook.org).

Products which are additionally halal and/or kosher tested and certified are subject to the supervision of HDC (Halal Industry Development Corporation) or the Kashrut Committee. All ingredients are, therefore, identified and determined qualitatively and quantitatively. Institutes such as NSF, InS Services and HCS (Halal Certification Services) examine the products with regard to FDA requirements or religious guidelines. Moreover, they audit the production lines and issue the corresponding certificates. In addition, lubricants utilised in food processing must be odour- and tasteless, physiologically harmless and have to meet the legal regulations.

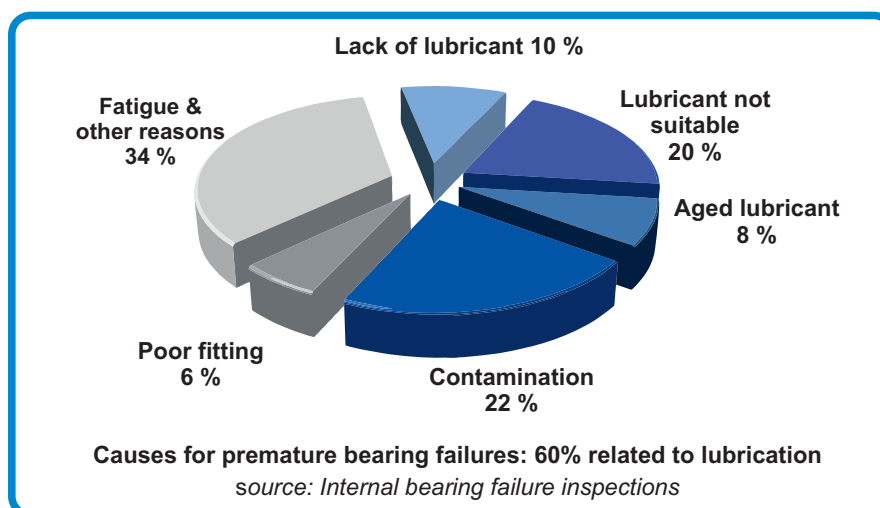


Safety and Efficiency for the Application of H1 Lubricants under Harsh Conditions

Severe operating conditions such as extreme temperatures, humidity and the use of sanitizers or cleaners present unique challenges for food grade lubricants. In order to meet these requirements LUBCON has been developing and producing special lubricants and lubrication systems for more than 35 years, responding precisely to the exacting demands in food, beverage, packaging and pharmaceutical processing. Our comprehensive portfolio contains more than 140 lubricants which are H1 approved and mostly also halal and kosher certified.

Lubricant Selection for (Roller) Bearings

Selecting a suitable lubricant is crucial for the reliable functioning of bearings in subassemblies and production facilities. The statistics of our own damage analysis show a direct or indirect relation to the lubricant used for a significant part of premature bearing failures.



The most common reasons for damages are contaminations of the lubricant and the use of unsuitable lubricants. Further failure causes related to lubrication are lack of lubricant or reduced lubricity due to aged lubricants. In total, this results in a lubrication related failure rate of 60 %. A careful and correct selection of the lubricant has therefore a big impact on the service life of bearings and thus on the efficiency of a production machine.

Important Parameters for a Correct Lubricant Selection:

- type of application
- type of bearing
- rotational speed
- load direction and altitude
- bearing operating temperature
- operating conditions
- ambient temperature
- horizontal or vertical shaft orientation
- rotating inner or outer ring
- rotation or oscillation
- vibration or shock loads
- operating hours



Product Overview

Application	Products	Base Oil Visco- sity at 40 °C [mm ² /s]]	Temperature Range		NLGI-Class	Load Carrying Capacity	Speed Factor	Corrosion Protection	Water Resistance	Solid Lubricants
			Min	Max						

H1 Lubricants for Roller Bearings, Plain Bearings and Linear Guides

Multipurpose Grease	Turmosynthgrease AL 4602	460	-20 °C	+160 °C	2	L	M	++	++	-
	Turmosynthgrease AL 2502	250	-25 °C	+120 °C	2	L	M	++	++	-
	Turmosynthgrease AL 1002	100	-25 °C	+120 °C	2	L	M	++	++	-
High Performance Synthetic Grease	Turmosynthgrease ALN 8002	800	-30 °C	+180 °C	2	H	M	++	++	-
	Turmosynthgrease ALN 4602 TF	460	-30 °C	+180 °C	2	H	M	++	++	PTFE
	Turmosynthgrease ALN 4602	460	-30 °C	+180 °C	2	M	M	++	++	-
	Turmosynthgrease ALN 2502 PM	250	-30 °C	+160 °C	2	M	H	++	++	-
	Turmosynthgrease ALN 1002	100	-40 °C	+140 °C	2	M	VH	++	++	-
High Performance EP Grease	Turmosynthgrease CSX 3002 EP	320	-40 °C	+180 °C	1-2	H	H	++	+++	-
	Turmosynthgrease CSX 802 EP	80	-55 °C	+160 °C	1-2	H	H	++	+++	-
Low Temperature Grease	Turmosynthgrease LT 300	28	-54 °C	+120 °C	0	L	M	++	++	-
High Temperature Grease	Turmotemp II/400 RS 2	550	-30 °C	+260 °C	2	VH	M	++	++	PTFE
	Sintono Mega 2	500	-30 °C	+260 °C	2	VH	M	++	++	-

H1 Lubricants with Antimicrobial Additives (further LUBCON products with antimicrobial

High Performance Synthetic Grease for Guides & Bearings	Turmosynthgr. ALN 1002 clean	100	-40 °C	+140 °C	2	M	VH	++	++	-
Filling Armatures with EPDM-Seals in Aseptic Processing Environment	Turmsilon LMI 5000 clean	9000 (at 25 °C)	-50 °C	+220 °C	3	n.a.	n.a.	++	++	++

+++ outstanding ++ very good + good o average

Bearing Operating Parameters		Speed Factor (n x dm)			Load C/P
		Ball Bearings	Spherical- & Taper Roller Bearings	Cylindrical Roller Bearings	
L	Low	< 100 000	< 75 000	< 75 000	> 15
M	Medium	< 300 000	< 210 000	< 270 000	= 5 up to 15
H	High	< 500 000	≥ 210 000	≥ 270 000	= 2 up to 4
VH	Very high	< 700 000	-	-	< 2
EH	Extremely high	≥ 700 000	-	-	-


n = Operating Speed [min⁻¹]

C = Dynamic Bearing Load Carrying Capacity [N]

dm = 0,5 (d + D) = Bearing Mean Diameter [mm]

P = Equivalent Dynamic Bearing Load [N]

This is only an overview of the core products from the entire LUBCON H1 portfolio.
 Further products as well as other NLGI consistencies of the grease types listed below are available upon request.

Base Oil/ Thickener	Features and Benefits	
Highly refined white oil/al-complex soap	Suitable for various applications with low to medium temperatures and speeds. Resistant to hot/cold water, outstanding adhesive properties.	
PAO/ polyurea al-special soap	Grease for demanding applications (high speed, high loads, high temperature). Due to a long grease operating life it is very suitable for the lifetime lubrication of bearings.	
SHC	Excellent mechanical stability and optimum performance under extreme operating conditions. Outstanding water resistance, excellent anti-corrosion and anti-wear properties.	
PAO/polyurea al-special soap	Very good wear protection, high load carrying capacity, high metal affinity and long service life.	
PFPE/PTFE	Extreme high temperature grease with excellent ageing and oxidation stability. Non-flammable and neutral to most elastomers.	
PFPE/polyurea	Unique high temperature grease based on perfluorinated oils (PFPE) and a special polyurea thickener, without PTFE. Superior flow behaviour at high thermal and mechanical stress. Miscible with lubricants containing PFPE/PTFE.	
additives are available upon request.)		
PAO/polyurea al-special soap	Special grease with antimicrobial additives for demanding applications (high speed, high load, high temperature). Especially suitable in lubricated-for-life bearings.	
Silicone oil/PTFE	Silicone grease with antimicrobial additives to prevent growth of pathogenic germs in the grease. Suitable for the lubrication of EPDM-seals, rubber joints, membranes and lip seals e.g. in filling armatures. Resistant to disinfectant solutions, water and steam, neutral towards bear foam.	

LUBCON Clean Series - H1 Lubricants with Antimicrobial Additives



Obvious evidence in a petri dish:
The growth of pathogens (pictured: legionella bacteria) can be evidently reduced due to antimicrobial additives.

Cleanliness and hygiene are essential in the food, beverage and pharmaceutical industry. Especially bacterial formations present a high risk, which is often underestimated. In machine components such as lubricated bearings it is mostly impossible or impractical to apply special measures for germ reduction such as heating, radiation, sterilisation and addition of preservatives. LUBCON lubricants containing antimicrobial additives can be efficiently utilized in these applications in order to prevent microbial growth within the lubricant.

Product Overview

Application	Products	Base Oil Viscosity at 40 °C	Temperature Range		Corrosion Protection
			Min	Max	
H1 Gearbox and Open Gear Lubricants					
Multipurpose Gear Oils	Turmosynth VG series*	46 - 1500	-10 °C	+100 °C	+
High Performance Synthetic Gear Oil	Turmosynthoil GV series*	15 - 1000	-40 °C	+140 °C	++
Worm, Bevel Gear and Geared Motor Oil	Turmosynthoil PG series*	68 - 680	-30 °C	+160 °C	+++
Universal Semifluid Gear Grease (NLGI 00 and NLGI 000)	Turmosynthgrease AL 2502	250	-25 °C	+120 °C	+
Synthetic Semifluid Gear Grease (NLGI 0, 00 and 000)	Turmosynthgrease ALN series*	100 - 460	-30 °C	+140 °C	++
Aerosol for Open Gear Lubrication	Turmosynth VG 4800	4800	0 °C	+140 °C	++
Grease for Open Gear Lubrication	Turmosynthgrease ALN 8001	800	-30 °C	+180 °C	++
Flushing Oil	Turmoflush FG 15	16	-10 °C	+80 °C	n.a.

+++ outstanding ++ very good + good o average

*For product series temperature limits are valid according to the technical data sheet of the lubricant in its specific viscosity.

Lubricant Selection for Gears

The following details are important for a correct gear lubricant selection:

- gear type (tooth geometry)
- power
- speed (ratio)
- operating temperature
- operating conditions


Usually the selection of a suitable lubricant is done by the manufacturer during the constructive planning of the gear. During this phase it is very important that the lubricant is not only considered as a necessary operating material, but is given the status of an essential construction element. A thorough and correct lubricant selection has a significant effect on service life and maintenance. A supposedly equivalent, cheaper lubricant might result in higher follow-up costs during the production process and for maintenance. Those follow-up costs are normally much higher than the savings achieved in the purchase of the lubricant itself.

The minimum requirements for circulating and gear oils are standardized in DIN 51517-1 to -3 in ISO 12925-1 and in AGMA 9005. However, characteristics of these oils as wear protection, oxidation resistance, corrosion protection and compatibilities can be very diverse.

Please contact the experts at LUBCON in case of any questions.



This is only an overview of the core products from the entire LUBCON H1 portfolio.
 Further products as well as other NLGI consistencies of the grease types listed below are available upon request.

Base Oil/ Thickener	Features and Benefits	
White oil blended with synthetic oils	Multipurpose gear and lubricating oil with a highly effective additive package for superior performance.	
PAO	Fully synthetic gear oil with wide temperature range and long service life.	
Polyglycol	Very good wear protection against sliding friction in worm and bevel gears. Suitable for high temperatures, extended service intervals.	
Highly refined white oil/al-complex soap	Good alternative to gear oils in applications where leakage is a risk. Available in various consistencies such as NLGI 00 and NLGI 000.	
PAO/polyurea al-special soap	High performance gear grease as a good alternative to gear oils in applications where leakage is a risk. Available in various consistencies: NLGI 0, NLGI 00 or NLGI 000.	
White oil blended with synthetic oils	Highly adhesive oil with high load carrying capacity. Excellent suitability for the lubrication of open gears.	
PAO/polyurea al-special soap	Synthetic high performance polyurea grease with outstanding adhesive properties and a high base oil viscosity providing high load carrying capacity.	
White oil	Low viscosity white oil suitable for cleaning and flushing of old oil in gearboxes and mechanical systems, e.g. when converting to H1 lubricants. Not miscible with polyglycol oils.	

Converting Machines and Applications to H1 Food Grade Lubricants



Minimise the risk of mixing up:
 LUBCON H1 lubricants are mostly sold in white packagings in order to easily differentiate from non-H1 lubricant.

Flushing the system is very often the only way to achieve adequate cleanliness and full performance of a new lubricant. Therefore, it is highly recommended to flush gearboxes and hydraulic systems when converting from conventional oil to H1 registered lubricants, e.g. with LUBCON® Turmoflush FG 15 (not miscible with Polyglycol oils).

A thoroughly carried out oil change procedure leads to improved safety in production processes and a longer service life for lubricant and lubricated machine components. It is to be avoided that the inside of the gear is contaminated by foreign particles, water or other liquids during the oil change process.

Detailed instructions for oil and grease change procedures can be obtained from your LUBCON® distributor or your regional LUBCON® representative.

Product Overview

Application	Products	Base Oil Viscosity at 40 °C [mm ² /s]	Temperature Range		Solid Lubricants
			Min	Max	
H1 Chain Oils					
Multipurpose Chain Spray	Turmofluid® LMI 300	15	-10 °C	+220 °C	-
Adhesive PTFE Chain Spray	Turmosynthoil 75 TF	40	-15 °C	+180 °C	PTFE
High Viscosity Chain Spray	Turmosynth VG 4800	4800	0 °C	+140 °C	-
Low Temperature Chain Oil	Turmosynthoil GV 32	32	-50 °C	+120 °C	-
High Temperature Chain Oil	Turmosynthoil HTC series	70 - 320	-	+250 °C	-
Extreme High Temperature Chain Oil	Turmosynthoil PG 120 WG	120	-	+900 °C	White graphite
Chain Oil for Aseptic Processing Environment	Turmosynthoil GV clean series	15 - 1000	-25 °C	+120 °C	-
H1 Lubricant for Conveyors					
Lubrication of Conveyors and Sliding Surfaces (e.g. chain conveyors systems in beverage processing)	Turmosynth VG 46 TF	46	-10 °C	+120 °C	PTFE

*For product series temperature limits are valid according to the technical data sheet of the lubricant in its specific viscosity.




Precise Lubrication:

The central lubricating unit TLB 2000 (left) and the control unit VRDS (right) make precise chain lubrication possible.

TLB 2000 - Benefits at a Glance:

- ✓ reduce maintenance effort and cost
- ✓ wear reduction
- ✓ enhance plant availability and service life
- ✓ automatic lubrication in protected areas
- ✓ defined point of impact per lubricating point
- ✓ minimum lubrication

This is only an overview of the core products from the entire LUBCON H1 portfolio. Further products as well as other NLGI consistencies of the grease types listed below are available upon request.

Base Oil	Features & Benefits
	
Synthetic ester	Universal chain spray with excellent penetration properties. Leaves a dry lubricant film that reduces dust attraction.
Synthetic ester/ PTFE	Very adhesive with solid lubricants to protect against wear and corrosion even under extreme conditions such as frequent wash downs.
White oil blended with synthetic oils	Transparent, highly adhesive chain oil with high load carrying capacity. Also suitable for lubrication of open gears.
PAO	Developed for the use on chains in spiral freezers. Penetrates into the structure of the chain and protects it at lowest temperatures.
Highly developed synthetic ester	High temperature, solid-free oven chain oil with newly developed combination of anti-oxidation additives. Very low evaporation loss.
Polyglycol combined with solid lubricants	At temperatures above +220 °C the oil evaporates and a smooth dry film with lubricating properties up to +900 °C is formed.
PAO	Lubricants with antimicrobial additives to prevent growth of pathogenic germs and mould fungus in the oil.
White oil	Dry lubricant with excellent adhesive properties, specially developed for the lubrication of flat top chain conveyors in the beverage processing industry. Very good alternative to soap solution. Improves operator safety by reducing slip hazards and provides enhanced line efficiency.

Efficient Chain Lubrication with Central Lubricating Unit TLB 2000

For the application in the food, beverage, packaging and pharmaceutical industry it is extremely important to lubricate effectively and with minimum quantities. Overlubrication or an unprecise dosage, e. g. at the chains of baking and drying ovens, freezing plants, conveyor belts or packaging lines may lead to a contamination of the final products with lubricants. Many lubrication systems available on the market use nozzles to apply the oil onto the chain. However, through a broad spray cone the lubricant may either miss the chain completely or wet the external surfaces only. Moreover, the use of harmless H1 lubricants should not be considered a license to act according to the principle “the more the better”. Even H1 lubricants are only allowed for product contact in very small quantities, if this is technically not avoidable.



TLB 2000 offers the technology to precisely dose minimum quantities of lubricant at those points where the lubricant is needed. In combination with special H1 chain oils (e. g. Turmosynthoil HTC 270) LUBCON offers an optimum solution to extend the service life of chains considerably, to increase safety during production and to reduce the grease consumption.



Product Overview

Product	Base Oil Viscosity at 40 °C [mm ² /s]	Temperature Range		Base Oil
		Min	Max	
H1 Cutting, Cleaning, Lubricating and Preservation Oils for Corrugators				
Turmocut SR 15	17	-15 °C	+150 °C	High purity hydrocarbons
Turmocut SR 68	68	-10 °C	+160 °C	
Turmocut LMI 22	15	-5 °C	+220 °C	Ester
Turmosynth VG 220	220	-10 °C	+120 °C	White oil blended with synthetic oils

H1 Cutting, Cleaning, Lubricating and Preservation Oils for Corrugators

In the production of corrugated boards the paper is often extremely abrasive. Combined with starch a chemically aggressive layer is formed on the cutting disc and blades. If not removed, the starch and fiber deposit will corrode the steel material and increase abrasive wear of the cutting discs and blades. This leads to higher maintenance-related downtime of machines.

Wet, lubricated blades efficiently prevent any starch and paper fiber deposits. Moreover, they make it possible to cut even

through highly adhesive material. The sharpness of knives can be maintained significantly longer. Thus, they make clean cuts, reduce friction, prevent material from being burned, substandard or otherwise damaged.



LUBCON H1 Cutting Oils Provide the Following Benefits:

- ✓ good lubricating capabilities
- ✓ reduction of friction
- ✓ excellent corrosion protection
- ✓ cooling properties
- ✓ glue and starch dissolving

Contact the experts of LUBCON to select the right cutting oil for your application.

This is only an overview of the core products from the entire LUBCON H1 portfolio. Further products as well as other NLGI consistencies of the below listed grease types are available upon request.

Features & Benefits



Special cutting oils with superior glue and starch dissolving capabilities. A unique additive package dissolves starch build-up in felts, on trim stones and blades, which improves the slitter performance significantly. These high quality oils provide very good surface wetting properties and excellent corrosion protection, keeping cutting blades clean and sharp while extending blade service life to > 30 Mio. linear meters.

Fully synthetic, low viscosity premium oil with low evaporation and outstanding surface wetting capabilities for faster and easier cleaning of corrugating rolls. Its excellent lubrication properties and high corrosion protection make it also perfectly suitable for lubrication of slitter blades.

Cutting oil with very good surface wetting properties and excellent corrosion protection for outstanding cutting performance in the corrugator rotary shear section. It reduces friction and wear and enables maximum cutting accuracy even at running speeds up to 400 m/min. Its high surface affinity and superior lubricity prevent centrifugation and contamination of the corrugated paper as well as starch build up on knives which keeps them clean and sharp.

High-Tech Cutting Oil for the Slitter and Scorer

LUBCON has developed the next generation of cutting fluids for the corrugating industry in close cooperation with OEM (Original Equipment Manufacturers). The aim was to increase the service life of knives and sharpening stones while decreasing maintenance effort and cost.

During R&D for **Turmocut SR 15**, evaluations of service tests at machines helped to respond to the needs and criteria described by production and maintenance.

Tests under harsh operating conditions have proven that **Turmocut SR 15** has an excellent dissolving effect on starch residues and provides optimum felt penetration. Thus, the unique preservation and cleaning oil reduces the cleaning interval of stones and increases the service life of knives.

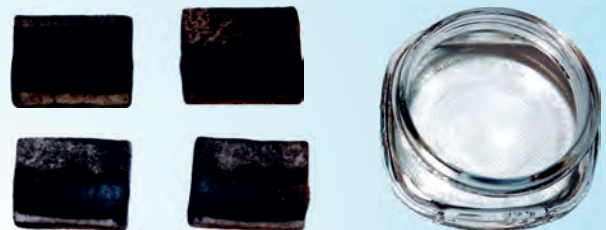


Fig. 1: Felt pads from slitter & scorer before treatment with **Turmocut SR 15**

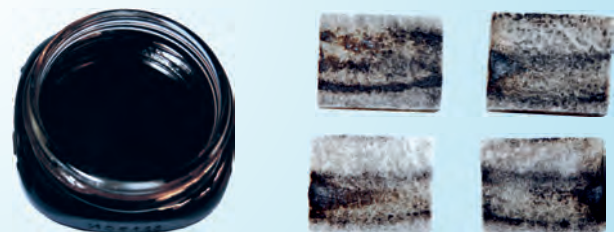


Fig. 2: Felt pads from slitter & scorer after treatment with **Turmocut SR 15**

Product Overview

Application	Product	Base Oil Viscosity at 40 °C [mm ² /s]	Temperature Range	
			Min	Max
H1 Lubricants for Seals, Armatures and Valves				
Seals, Armatures	Turmosynth 2000	6000	-20 °C	+120 °C
Armatures with EPDM Seals	Turmsilon® LMI 5000 (also available with antimicrobial additive - „clean“)	9000 (at 25 °C)	-50 °C	+220 °C
Fittings, Valves, Tabs	Turmosynthgrease LMI 2	100	-20 °C	+120 °C
H1 Hydraulic Oils				
Universal Hydraulic Oils	Turmosynth VG series	10 - 150	-10 °C	+100 °C
Synthetic High Performance Hydraulic Oils	Turmosynthoil GV series	15 - 150	-40 °C	+140 °C
H1 Compressor and Vacuum Pump Oils				
Compressors				
Rotary Screw Compressors	Compguard® FG 32 – 68	32 - 68	--	+160 °C
Reciprocating Piston Compressors	Compguard® FG 100	96	--	+160 °C
Vacuum Pumps				
Rotary Vane Pumps	Compguard® VPO 100	96	-35 °C	+140 °C
H1 Lubricants for Maintenance				
Release and Sliding Agent				
Silicone Oil (aerosol)	Turmsilon® M 100 *	27	-50 °C	+220 °C
Silicone Oil	Turmsilon® K series	290 - 4900	-	+220 °C
Penetrating Oil				
Multipurpose Penetrating Oil	Rapid FG 15 *	15	-55 °C	+100 °C
Assembly & Anti-Seize Paste				
Threads, Bolts, Guides, Protection against Fretting Corrosion	Turmosynth TAS white *	80	-20 °C	+900 °C
	Turmopast TAS LMI	220	-40 °C	+1200 °C
Cleaner and Degreaser				
Cleaner & Degreaser	Turmosynth VG 1 *	-	Room Temperature	
Cleaner with Lubricating Properties	Turmosynth VG 2 *	-	up to +60 °C	
Sugar Dissolvent				
Biodegradable Sugar Dissolvent	Elephants milk	22	+10 °C	+65 °C

* also available as aerosol

This is only an overview of the core products from the entire LUBCON H1 portfolio.
 Further products as well as other NLGI consistencies of the grease types listed below are available upon request.



Base Oil/ Thickener	Features & Benefits
White oil/ inorganic thickener	Silicone-free, multi-purpose seal lubricant with excellent adhesiveness. Also suitable for slow rotating bearings. Available in consistencies NLGI 2 and NLGI 3.
Silicone oil/ PTFE	Special silicone grease, suitable for the lubrication of EPDM-seals, rubber joints, membranes and lip seals, e.g. in filling armatures. Resistant to disinfectant solutions, water and steam, neutral towards bear foam.
White oil/ inorganic thickener	Ointment-like white vaseline of extremely high purity and excellent oxidation stability (no gumming or conglutination) for lubrication of fittings, valves and tabs. Stable towards water and steam, milk and fruit acids, neutral towards bear foam.
White oil blended with synthetic oils	Contains highly effective additive package ensuring safe operation in hydraulic systems.
PAO	Fully synthetic hydraulic oil with wide temperature range and long service life.
SHC	Fully synthetic compressor oils for extended oil change intervals of more than 4000 hours. Due to reduced friction and high oxidation resistance they contribute to a reduction of operating temperature.
SHC	
PAO	Fully synthetic high performance vacuum oil for extended oil change intervals. High ageing resistance and neutral towards plastics and elastomers.
Silicone oil	Release and sliding agent, neutral in colour, odour and taste. Especially suitable for the lubrication of material combinations such as plastic/metal or plastic/plastic.
PAO	Excellent creeping properties and very good corrosion protection. Cleans and loosens rusted parts and leaves a durable lubricating film.
White oil/inorganic thickener with solids	Metal-free anti-seize & assembly paste with excellent separating properties and corrosion protection at high contact pressure and temperatures. Provides also good fretting corrosion protection.
Polyglycol/inorganic thickener with solids	
Isoparaffinic HC	Quickly evaporating special cleaner and degreaser particularly suitable to remove oil, grease or wax from tools and components.
Isoparaffinic HC	Multi-purpose cleaner with lubricating properties. Leaves a durable lubricating film which serves as preservative or improves dismantling of machine parts.
White oil	Biodegradable sugar-dissolving lubricant with excellent corrosion protection. Easily cleans sticky deposits.



LUBCON Services for the Food, Beverage & Pharmaceutical Industry:

- ✓ individual support
- ✓ worldwide availability
- ✓ customer-specific solutions
- ✓ automatic lubricating systems
- ✓ lubricant analysis
- ✓ bearing failure inspections
- ✓ more than 150 H1 certified lubricants

LUBCON H1 Lube Consultant

A useful mobile H1 advisor

- ✓ fast lubricant selection
- ✓ comprehensive information about H1 lubricants



If you would like to know more about our **Products** and **Services**, do not hesitate to contact us.

LUBRICANT CONSULT GMBH

Lubricants ■ Lubrication Technology
Gutenbergstr. 11-13 ■ 63477 Maintal ■ Germany

Tel.: +49 6109 7650-0 ■ Fax: +49 6109 7650-51 ■ Email: webmaster@lubcon.com ■ www.lubcon.com

This brochure contains only general product information. For specific information please refer to our technical data and safety data sheets. The content represents the actual state of development and knowledge of LUBRICANT CONSULT GmbH that can be subject to change without notification. The products mentioned fully comply with the specifications defined by our company but due to the multitude of different applications and influencing factors, we cannot guarantee suitability for the individual application. To determine the suitability of a lubricant we, therefore, recommend contacting an application engineer and, if necessary, performing individual field tests. Any further liability by LUBRICANT CONSULT GmbH is expressly excluded