It is best to have a quiet moment ...
High requirements
Lubricants need high requirements when bearings are operating under high speeds, extreme temperatures or unfavourable ambient conditions. The lubricant should be of high quality, reliability and at the same time of low noise.
As a specialist of lubricants, we have developed greases which fulfil uncompromisingly these requirements.

The calmness itself
The noise performance of a rolling bearing is not only due to the purity of the applied grease. The noise development results from many parameters with mutual influences.

<table>
<thead>
<tr>
<th>LUBCON</th>
<th>Noise performance</th>
<th>Cleanliness</th>
<th>High speed</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>High temperatures</td>
</tr>
<tr>
<td>SINTONO® GPE 703</td>
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<td>THERMOPLEX® LC 302 EP</td>
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<td>3</td>
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<tr>
<td>THERMOPLEX® Li 302</td>
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<td>3</td>
</tr>
<tr>
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<td>1</td>
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<td>THERMOPLEX® 2 TML</td>
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<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>TURMOGREASE® HS L 252</td>
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<tr>
<td>TURMOGREASE® LC 802 EP</td>
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<td>2</td>
</tr>
<tr>
<td>TURMOGREASE® Li 802 EP</td>
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</tr>
<tr>
<td>TURMOGREASE® N 503 B</td>
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<tr>
<td>TURMOGREASE® PHS 1002</td>
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<tr>
<td>TURMOGREASE® PU 703</td>
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</tbody>
</table>

Requirement: 1 = very good, 2 = good, 3 = sufficient
### Hearing test passed

The noise performance of a bearing is an important quality characteristic and has to be controlled continuously. Intensive quality controls have been effected by FAG by means of all kinds of auxiliary devices of modern measurement vibration technique. New test machines with successful results have been developed. Recently they found their application in noise tests for quality assurance.

The Anderometer method has proved as a reliable method of measuring. For this purpose, a bearing is set with the inner ring on a turning shaft and is then axially loaded on the outer ring. With an oscillating speed indicator the measurement of structure borne sound is taken from the outer ring in three ranges of frequencies.

The measured value has the unity Anderon and indicates the speed of vibration with reference to the revolutions.

### Silence please

- whenever a quiet running is requested, the **LUBCON special lubricants** care for noise reduction, i.e. in electric motors, air conditioners, fans as well as in precision engineering of computer and video technology and domestic appliances industry.

**LUBCON - the strong silent type.**

---

**LUBCON lubricating greases** as well have passed this noise test. With a rating of "noise class I/1 up to II/1" they have reached very convincing test results.

---

**Noise performance of lubricants in 5 different bearings upon dependence of time**

---

**Noise performance of the test greases**

<table>
<thead>
<tr>
<th>Noise class/start-up</th>
<th>Start-up value high</th>
<th>Noise peaks of 0 - 32s high</th>
<th>Noise peaks of 0 - 32s medium</th>
<th>Damping factor high</th>
<th>Damping factor medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>II/1</td>
<td>1</td>
<td>0.6</td>
<td>0.9</td>
<td>1</td>
<td>1</td>
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<tr>
<td>I/1</td>
<td>1</td>
<td>0.5</td>
<td>0.6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>II/1</td>
<td>1</td>
<td>1.7</td>
<td>3.0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>II/4</td>
<td>3</td>
<td>3.0</td>
<td>5.6</td>
<td>3</td>
<td>4</td>
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<tr>
<td>II/4</td>
<td>4</td>
<td>2.3</td>
<td>4.1</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
**LUBCON Product Information**

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<tr>
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<td></td>
</tr>
<tr>
<td>T-GREASE® PU 1002</td>
<td></td>
</tr>
</tbody>
</table>

**Colour**
- yellowish
- lightbeige
- lightbeige
- beige
- yellowish/transp.
- brownish/beige
- beige
- darkbrown
- yellowish
- yellowish
- yellowish
- green

**Structure**
- homogenous
- homogenous
- homogenous
- homogenous
- homogenous
- homogenous
- homogenous
- homogenous
- homogenous
- homogenous
- homogenous

**Base oil type**
- Ester
- Ester
- Ester
- Ester
- Ester
- PAO/Ester
- SHC/min
- SHC/min
- PAO/Ester
- min/SHC
- Ester
- min

**Base oil viscosity at 40 °C (mm²/s DIN 51562)**
- 70
- 30
- 30
- 55
- 55
- 25
- appr. 82
- appr. 82
- 55
- 105
- 70
- 100

**Thickener**
- PU
- Li-Ca
- Lithium
- Lithium
- Lithium
- Spec.-Lithium
- Li-Ca
- Lithium
- PU
- PU
- PU
- PU

**Drop point in °C DIN 51817**
- >+250
- >+170
- >+170
- >+180
- >+180
- >+250
- >+180
- >+250
- >+250
- >+250

**Consistency class DIN 51818**
- 3
- 2
- 2
- 2
- 3
- 2

**Worked penetration 0.1 mm DIN ISO 2137**
- appr. 240
- 265 - 295
- 265 - 295
- 265 - 295
- 250 - 275
- 250 - 275
- 250 - 275
- 265 - 295
- 210 - 240
- 265 - 295
- appr. 240
- 265 - 295

**Speed factor mm - min⁻¹**
- 1.300.000
- 1.800.000
- 1.800.000
- 1.300.000
- 2.200.000
- 1.000.000
- 1.000.000
- 1.300.000
- 750.000
- 1.300.000
- 750.000

**Corrosion protection acc. to Emcor DIN 51802, dest. water**
- 0 - 0
- 0 - 0
- 0 - 0
- 0 - 0
- 0 - 0
- 0 - 0
- 0 - 0
- 0 - 0
- 0 - 0
- 0 - 0
- 0 - 0

**Water resistance 3 h, 90 °C, DIN 51807 Pt1/Pt2**
- 1 - 80
- 1 - 90
- 1 - 90
- 1 - 90
- 1 - 90
- 1 - 90
- 1 - 90
- 1 - 80
- 1 - 80
- 1 - 90
- 1 - 80

**Service temperature °C**
- 40 up to +180
- 50 up to +150
- 50 up to +150
- 40 up to +160
- 35 up to +140
- 40 up to +120
- 35 up to +140
- 35 up to +140
- 40 up to +160
- 40 up to +160
- 40 up to +180
- 40 up to +160

**Density at 20 °C g/ml**
- 0.967
- 0.955
- 0.955
- 0.97
- 0.975
- 0.975
- 0.94
- 0.91
- 0.87
- 0.855
- 0.87
- 1.0
- 0.87

**Noise class MGG 11**
- I/I
- II/II
- II/I
- II/I
- II/I
- II/I
- II/I
- II/I
- II/I
- II/I
- 0.1 bar

**Oxidation resistance 100 h/99 °C DIN 51808**
- 0.1 bar
- 0.3 bar
- 0.25 bar
- 0.15 bar
- 0.2 bar
- 0.2 bar
- --
- 0.15 bar
- 0.1 bar
- 0.2 bar

**FE8 test DIN 51821 A1,5/6000-°C/Pmin**
- >700 h/180 °C
- >700 h/180 °C
- >700 h/140 °C
- 400 h/140 °C
- >250 h/120 °C
- --
- >150 h/140 °C
- 280 h/180 °C
- >300 h/160 °C
- >700 h/180 °C
- >200 h/160 °C

**Oil separation at 40 °C DIN 51817**
- 0.57 %
- 3.0 %
- 4.0 %
- 4.0 %
- 2.8 %
- 1.05 %
- 3.5 %
- 2.0 %
- 3.5 %
- 6.0 %
- --
- 0.5 %
- 0.5 %
- 0.5 %

**Start/running torque ASTM D 1478 at -40 °C**
- 1353 mNm
- 263 mNm
- 130 mNm
- 19.5 mNm
- 150 mNm
- 19.5 mNm
- 150 mNm
- 263 mNm
- 810 mNm

* Slight differences regarding the noise performance may occur from batch to batch.

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 LUBRICANT CONSULT GMBH. Subject to change. 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.
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