

... MAPLUB® SH 101-b ...



Licence n° 80354

Technical data sheet: RL 104
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 Page 1/1

➤ Coating characteristics

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|--|---|--|
| Composition | ➤ | Low outgassing synthetic hydrocarbon oil PTFE & MoS ₂ particles (PolyTetraFluoroEthylene & Molybdenum Disulfide) |
| Worked penetration ¼ cone, 60 strokes (NFT 60 140) | ➤ | 319. 10 ⁻⁴ m |
| Unworked penetration ¼ cone (NFT 60 140) | ➤ | 313. 10 ⁻⁴ m |
| NLGI Grade (consistency) (ASTM D217) | ➤ | 1 |
| Density @ 20°C | ➤ | 1.10 g/ml |
| Apparent viscosity @ 20°C & 10 s-1 (cone/plate - Set speed) | ➤ | 42 Pa.s ± 7 Pa.s |
| Apparent viscosity @ 20°C & 100 s-1 (cone/plate - Set speed) | ➤ | 5.8 Pa.s ± 2 Pa.s |
| Base oil viscosity index | ➤ | 135 |
| Limiting temperatures in constant use | ➤ | -40°C / +100°C |
| Limiting temperatures in occasional use | ➤ | +200°C |
| Base oil pour point | ➤ | -55 °C |
| Oil separation (FTMS 321-3) | ➤ | 2.0 % mass |
| Evaporation loss (ASTM D972) | ➤ | 0.2 % mass |
| Outgassing* (ECSS Q 70-02A) | ➤ | TML = < 1% RML = < 1% CVCM = < 0.1% |
| Limit working pressure | ➤ | 10 ⁻¹⁰ Torr @ 100°C |

* INTA measuring report ESE/RPT/4316/009/INTA/06

➤ Definition

Grease for long lifetime applications under ultra vacuum.

Aspect: dark grey

Purpose: MAPLUB SH 101-b grease has been specially formulated to meet long lifetime specifications for satellite mechanisms. Thus:

Its chemical stability in relation to metallic and plastic materials allows its use for a very long lifetime. To date, no deterioration has been observed.

Its low consistency leads to relatively low resistant torques, especially at low temperatures. MoS₂ particles protect surfaces during highly stressed contacts (significant sliding or boundary regimes).

This grease is quite suitable for space use, on any type of material (metal, ceramic, plastic, etc.) and on such various components as: ball and journal bearings, gears, Harmonic Drive or Cyclo gear boxes, roller and ball screws, sliding systems.

Due to its low evaporation rate, it can be used in specific applications such as: vacuum equipment, (vacuum pumps, etc.), electronics (components manufacturing) & electrotechnics (connections), scientific instrumentation (particles rings, etc.), the automotive industry, aeronautics, nuclear power systems, robots for clean rooms.

➤ Packaging

50 ml, 100 ml & 250 ml

➤ Storage

In original unopened packaging in a dry, cool and dark area. Normal exudation (bleeding) of the grease may occur after a few weeks storage. Therefore, it is recommended to homogenize the grease in its can with a clean metallic spatula before use.

➤ Safety data

Precautions ➤ This product is not flammable. This preparation is not classified as a health hazard according to 1999/45/CE directive.

Labelling ➤ This preparation was classified in compliance with the directives in effect.

Transport ➤ Please refer to our latest safety datasheet.