

DUOTEMPI PMY 45

Light-coloured high-pressure lubricating paste



Your benefits at a glance

- Easy assembly and disassembly of frictional connections
- Ensures reliable screw connection by provision of an adequate preload force during assembly
- Prevents fretting corrosion enabling increased component lifetime

Your requirements - our solution

DUOTEMPI PMY 45 is a light-coloured high-pressure lubricating paste for frictional connections subject to medium temperatures in predominantly dry environments. DUOTEMPI PMY 45 is based on mineral and synthetic hydrocarbon oils plus solid lubricants and special lithium soap. DUOTEMPI PMY 45 ensures easy assembly and disassembly of interference fits and clamping connections subject to medium loads while preventing fretting corrosion (tribo-corrosion).

Application

As a lubricating paste:

For low-speed (plain) bearings, guides, joints, bushes, eccentric units, seals, bolts, and hinges in all fields of plant and machine engineering. For automotive components such as gear shift gates, ball joints, seat rails, steering-knuckle pins or profile gears.

As an assembly paste:

For interference, transition, and loose fits.

As a screw paste:

For austenitic materials (A2-70) and the assembly of screws and bolts under normal temperature conditions.

Application notes

Before applying DUOTEMPI PMY 45 it is important to clean and degrease all contact surfaces and to apply the paste in a thin layer using a brush, plastic sponge or a dry, lint-free cloth. DUOTEMPI PMY 45 is compatible with many sealing materials and elastomers; however, we recommend undertaking a materials compatibility test with the lubricant used prior to series application.

The friction values indicated on page 2 in the Section Product Data were determined with two different materials. Other materials/surfaces have to be checked accordingly.

Material safety data sheets

Material safety data sheets can be requested via our website www.klueber.com. You may also obtain them through your contact person at Klüber Lubrication.

| Pack sizes | DUOTEMPI PMY 45 |
|--------------|-----------------|
| Can 600 g | + |
| Bucket 6 kg | + |
| Bucket 30 kg | + |
| Drum 220 kg | + |

| Characteristics | DUOTEMPI PMY 45 |
|-----------------|-----------------------------|
| Article number | 005066 |
| Colour space | beige |
| Texture | homogeneous , short fibrous |

DUOTEMPI PMY 45

Light-coloured high-pressure lubricating paste



| Characteristics | DUOTEMPI PMY 45 |
|---|-------------------------------|
| Service temperature, lower limit | -40 °C |
| Service temperature, upper limit | 120 °C |
| Density, Klüber method: PN 024, 20°C | approx. 1.2 g/cm ³ |
| Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, lower limit | 245 0.1 mm |
| Worked penetration, DIN ISO 2137 / ASTM D217, 25°C, upper limit | 275 0.1 mm |
| Dropping point, DIN ISO 2176 / IP 396 | ≥ 190 °C |
| Four-ball tester, welding load, DIN 51350-4 | ≥ 3200 N |
| Friction coefficient screw test, hexagon bolts M10 x 50-A2-70, DIN EN ISO 4017, tightening speed $n = 5 \text{ min}^{-1}$, number of screws = 20, material of the nut A2, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 40 Nm, averaged bearing surface friction coefficient (initial tightening), external test | 0.1 |
| Friction coefficient screw test, hexagon bolts M10 x 50-A2-70, DIN EN ISO 4017, tightening speed $n = 5 \text{ min}^{-1}$, number of screws = 20, material of the nut A2, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 40 Nm, averaged thread friction coefficient (initial tightening), external test | 0.09 |
| Friction coefficient screw test, hexagon bolts M10 x 50-A2-70, DIN EN ISO 4017, tightening speed $n = 5 \text{ min}^{-1}$, number of screws = 20, material of the nut A2, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 40 Nm, standard deviation (S) of averaged bearing surface friction coefficient (initial tightening), external test | 0.003 |
| Friction coefficient screw test, hexagon bolts M10 x 50-A2-70, DIN EN ISO 4017, tightening speed $n = 5 \text{ min}^{-1}$, number of screws = 20, material of the nut A2, face material 42CrMo4 with roughness Ra 1.6, tightening torque MA = 40 Nm, standard deviation (S) of averaged thread friction coefficient (initial tightening), external test | 0.011 |
| Minimum shelf life from the date of manufacture - in a dry, frost-free place and in the unopened original container, approx. | 24 months |

Klüber Lubrication – your global specialist

Innovative tribological solutions are our passion. Through personal contact and consultation, we help our customers to be successful worldwide, in all industries and markets. With our ambitious technical concepts and experienced, competent staff we have been fulfilling increasingly demanding requirements by manufacturing efficient high-performance lubricants for more than 90 years.

Klüber Lubrication München GmbH & Co. KG /
Geisenhausenerstraße 7 / 81379 München / Germany /
phone +49 89 7876-0 / fax +49 89 7876-333.

The data in this document is based on our general experience and knowledge at the time of publication and is intended to give information of possible applications to a reader with technical experience. It constitutes neither an assurance of product properties nor does it release the user from the obligation of performing preliminary field tests with the product selected for a specific application. All data are guide values which depend on the lubricant's composition, the intended use and the application method. The technical values of lubricants change depending on the mechanical, dynamical, chemical and thermal loads, time and pressure. These changes may affect the function of a component. We recommend contacting us to discuss your specific application. If possible we will be pleased to provide a sample for testing on request. Klüber products are continually improved. Therefore, Klüber Lubrication reserves the right to change all the technical data in this document at any time without notice.

Publisher and Copyright: Klüber Lubrication München GmbH & Co. KG. Reprints, total or in part, are permitted only prior consultation with Klüber Lubrication München GmbH & Co. KG and if source is indicated and voucher copy is forwarded.