

PETRONAS SLIDEWAY HG SERIES

Premium Performance Machine Tool Slideways Oils

PETRONAS Slideway HG Series are premium performance slideway oils specially developed for machines where high precision and low speeds are used including combined slideway, industrial gear and hydraulic systems. It supports 3 performance requirements in the same equipment helping to deliver increased efficiency of your equipment.

Formulated with high quality selected mineral base oils enhanced with advanced extreme pressure, antioxidant, anti-rust, anti-wear and anti-foam additives, PETRONAS Slideway HG oils provide reduced frictional characteristics and high anti-wear and extreme pressure performance. Excellent separation from water-miscible cutting fluids. They also contain a combination of tackiness and stick-slip characteristics for machining accuracy.

Applications

PETRONAS Slideway HG Series are recommended for use in:

- machine tool slide-ways tables, feed mechanisms, linear and vertical guides, headstocks and transverse screws
- combined slideway, hydraulic and industrial gear systems in machine tools
- ISO VG68 is generally recommended for slideway on small to medium size machine tools, as well as a moderate duty hydraulic fluid
- ISO VG220 is used on large machines where slideway pressures are higher and machining precision is required. Also used for vertical and inclined slideways where drain down is minimized.

Features and Benefits

| Features | Benefits |
|--|---|
| Excellent friction properties | Has excellent frictional properties (stick-slip) to meet slideway requirements |
| High extreme pressure protection | High extreme pressure performance giving long gear life in severely loaded industrial gear in machine tools |
| Excellent water-miscible cutting fluids separation | Due to excellent water-miscible metalworking fluids separation, it allows easy removal by cleaning systems |
| High anti-wear protection | Protects equipment components from excessive wear and provides long equipment life |
| Good tackiness | Provides good tackiness to surface resisting wash-off by metalworking fluids |
| High rust & corrosion protection | Inhibits the corrosion process that occurs in presence of water, improving equipment life |
| High multi metal compatibility | Compatible with most metal alloys ensuring trouble free performance of the system |

Technical Data Sheet

Revision Date: 03.05.2023



PETRONAS SLIDEWAY HG SERIES

Premium Performance Machine Tool Slideways Oils

Typical Properties

| Characteristic | Method | Specification | 68 | 220 |
|------------------------------------|-----------------------|---------------|---------|---------|
| Specific Gravity @15°C | ASTM D 4052 | (1) | 0,862 | 0,895 |
| Kinematic Viscosity at 40°C, cSt | ASTM D 445 | ±10% | 68 | 220 |
| Kinematic Viscosity at 100°C, cSt | ASTM D 445 | ** | 8,7 | 18,7 |
| Viscosity Index | ASTM D 2270 | (1) | 99 | 95 |
| Flash Point, °C | ASTM D 92 | Report | 220 | 240 |
| Pour Point, °C | ASTM D 97 | ** | -21 | -15 |
| TAN, mgKOH/g | ASTM D 664 | (1) | 0,40 | 0,40 |
| Water Separability, 40/37/3 - mins | ASTM D 1401 | Max. 30 | 15 | 30 |
| FZG, Stages Passed | ISO 14635-1 | Min. 10 | Pass 12 | Pass 12 |
| Frictional Test | Cincinnati Stick-Slip | Max. 0,80 | 0,74 | 0,70 |
| Copper Strip Corrosion | ASTM D 130 | Max. 2 | 1b | 1b |
| Foam Sequence I, mL | ASTM D 892 | Max. 150/0 | 0/0 | 0/0 |
| Foam Sequence II, mL | | Max. 75/0 | 0/0 | 0/0 |
| Foam Sequence III, mL | | Max. 150/0 | 0/0 | 0/0 |

All technical data is provided for reference only and all specification based on DIN 51524-2, DIN 51517-3 and Fives Cincinnati

**Individual limits accordingly with each viscosity grade / (1): not required in specification / SS is available upon request including quality control limits

Performance Levels

- DIN 51502 CGLP
- DIN 51517 Part III CLP
- DIN 51524 Part II HLP
- Fives Cincinnati Machine (P47-ISO VG68 & P50-ISO VG220)
- ISO 19378 / ISO 6743-13 GA and GB

www.pli-petronas.com

ALL RIGHTS RESERVED. THIS PRODUCT DATA SHEET (INCLUDING NAME, INFORMATION, LOGOS, IMAGES, PICTURES AND ICONS) WHICH RELATES OR REFERS TO PETRONAS LUBRICANTS INTERNATIONAL (PLI) IS THE SOLE AND ABSOLUTE PROPERTY OF PLI AND/OR ITS HOLDING COMPANY AND SHALL BE TREATED AS PRIVATE AND CONFIDENTIAL. NO PART OF THIS DOCUMENT MAY BE REPRODUCED, STORED IN A RETRIEVAL SYSTEM OR TRANSMITTED IN ANY FORM OR ANY MEANS (ELECTRONIC, MECHANICAL, RECORDING OR OTHERWISE) WITHOUT THE PERMISSION OF PLI AND/OR ITS HOLDING COMPANY.

PETRONAS SLIDEWAY HG SERIES

Premium Performance Machine Tool Slideways Oils

Health, Safety and Environment

This product is unlikely to present any significant health and safety hazards when used in the recommended application. Avoid contact with skin. Wash immediately with soap and water after skin contact. Do not discharge into drains, soil or water.

For further detail regarding storage, safe handling, and disposal of product, please refer to product SDS or contact us at: www.pli-petronas.com.

Important Note

The word PETRONAS, the PETRONAS logo and such other related trademarks and/or marks used herein are trademarks or registered trademarks of PETRONAS Lubricants International Sdn. Bhd. ("PLISB"), or its subsidiaries or related Holding Corporation under license unless indicated otherwise. The PLI Documents and the information contained herein are believed to be accurate as of the date of printing. PLISB makes no express or implied representation or warranties as to its accuracy or completeness or information in or any transaction performed. The PLI Documents and information provided are based on standard tests under laboratory conditions and is given only as a guide. Users are advised to ensure that they refer to the latest version of these PLI Documents. It is the responsibility of the users to evaluate and use products safely, to assess suitability for the intended application and to comply with all applicable laws and regulations imposed by the respective local authorities.

Safety Data Sheets are available for all our products and should only be consulted for appropriate information regarding storage, safe handling and disposal of the product. No responsibility shall be taken by either PLISB or its subsidiaries and related holding corporation for any loss or injury or any direct, indirect, special, exemplary, consequential damages or any damages whatsoever, whether in action of contract, negligence or other tortuous action, in connection with or resulting from abnormal use of the materials and/or information, from any failure to adhere to recommendations, or from hazards inherent in the nature of the materials and/or information. All products, services and information supplied are under our standard conditions of sale. Please consult with any of our local representatives in the event you require any further information.