

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, anti-oxidant, 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 hydraulic and 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 slide-way 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

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Typical Properties

Characteristic	Method	Specification	68	220
Specific Gravity @15°C	ASTM D 4052	(1)	0,885	0,900
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	**	-30	-21
TAN, mgKOH/g	ASTM D 664	(1)	0,50	0,50
Water Separability, 40/37/3 - mins	ASTM D 1401	Max. 30	25	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		Max. 150/0	30/0	30/0
Foam Sequence II, mL	ASTM D 892	Max. 75/0	0/0	0/0
Foam Sequence III, mL		Max. 150/0	30/0	30/0

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

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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

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