

PETRONAS SLIDEWAY SERIES

High Performance Machine Tool Slideways Oils

PETRONAS Slideway Series are high performance lubricants specially developed for machine-tool ways and slides where precision or slow speeds make it necessary that “stick-slip” of tables and slides are eliminated.

Formulated with high quality selected mineral base oils enhanced with advanced anti-oxidant, anti-rust, extreme pressure, anti-wear and anti-foam additives, PETRONAS Slideway oils provide excellent separation from water-miscible cutting fluids, high anti-wear protection and a combination of adhesiveness and stick-slip characteristics ensuring smooth operation of the machine tools.

Applications

PETRONAS Slideway Series are recommended for use in:

- machine tool slideway tables, feed mechanisms, linear guides, headstocks and transverse screws
- ISO VG68 is generally recommended for slideway on small to medium size machine tools, as well as flooded applications in large machines, also suitable for circulating application in large machines and as a moderate duty hydraulic fluid
- ISO VG220 is the normal recommendation on large machines where way pressures are high or extreme precision is required and for vertical and inclined slideways where drain down can be a problem

Features and Benefits

Features	Benefits
Excellent separation with miscible cutting fluids	Due to excellent water-miscible metalworking fluids separation, it allows easy removal by cleaning systems
High extreme pressure protection	High extreme pressure performance giving long gear life in severely loaded gear drives
High anti-wear protection	Protects equipment components from excessive wear and provides long equipment life
High friction properties	Frictional properties (stick-slip) to meet slideway requirements
Good adhesiveness	Provides good adhesiveness 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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Technical Data Sheet
Version 2.0_13.07.2016

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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	**	-9	-6
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	CM Stick-Slip	Max. 0,80	0,78	0,78
Copper Strip Corrosion	ASTM D 130	Max. 2	1b	1b
Foam Sequence I, mL	ASTM D 892	Max. 150/0	30/0	30/0
Foam Sequence II, mL		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
- DIN 51524 Part II HLP (2006)
- Fives Cincinnati Machine (P47)

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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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