

PETRONAS ATO SERIES

High Performance Air Tool Oils

PETRONAS ATO Series are high performance air tool oils specially developed for a range of pneumatically operated rock drills in underground and surface mining.

Formulated with high quality selected mineral base oils enhanced with advanced anti-wear, anti-rust, anti-oxidant and anti-foam additives, PETRONAS ATO oils provide excellent anti-wear, metal wetting properties, adhesiveness, fog and emulsion control. The fog generation is kept at minimum and is non-toxic.

Applications

PETRONAS ATO Series are recommended for use in:

- pneumatically operated rock drills in underground and surface mining
- percussion and rotary air-operated tools

Features and Benefits

Features	Benefits
Prevents detonation and carbon deposits	Reduces sludge and deposit formation, improving valve operation
Excellent anti-wear protection	Protects equipment components from excessive wear and provides longer equipment life
Low temperature protection	Ensures proper protection of equipment components during cold starts and prevents tool downtime due to icing
Excellent fog control	Due to low fog generation thereby improving quality and safety working environment
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
High compatibility with most seal and elastomers	Compatible with most seals and elastomers, which prevents oil leaks and contamination due to seal erosion

www.pli-petronas.com

Technical Data Sheet

Revision Date: 16.09.2020



PETRONAS ATO SERIES

High Performance Air Tool Oils

Typical Properties

Characteristic	Method	32	46	100	150	220	320
Specific Gravity @15°C	ASTM D 4052	0,867	0,865	0,883	0,884	0,889	0,891
Kinematic Viscosity at 40°C, cSt	ASTM D 445	32	46	100	150	220	320
Kinematic Viscosity at 100°C, cSt	ASTM D 445	5,4	6,9	11,8	14,7	18,5	25,6
Viscosity Index	ASTM D 2270	102	105	107	97	93	98
Flash Point, °C	ASTM D 92	220	220	240	240	250	274
Pour Point, °C	ASTM D 97	-33	-30	-27	-24	-24	-12
4-Ball Wear Scar diameter, mm	ASTM D4172M	0,46	0,46	0,46	0,46	0,46	0,46
Timken, lbs	ASTM D2782	60	60	60	60	60	60
Copper Strip Corrosion	ASTM D 130	1a	1a	1a	1a	1a	1a
Foam Sequence I, mL	ASTM D 892	0/0	0/0	0/0	0/0	0/0	0/0
Foam Sequence II, mL		0/0	0/0	0/0	0/0	0/0	0/0
Foam Sequence III, mL		0/0	0/0	0/0	0/0	0/0	0/0

All technical data are provided for reference only / SS is available upon request including quality control limits

Performance Levels

- ISO 6743-11 Types PAC and PBC

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 ATO SERIES

High Performance Air Tool 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.