# **PETRONAS Tutela ATF 500 HD**



# Designed to be the Fluid Technology Solution of choice providing improved protection for automatic transmission systems

### **Description and Applications**

PETRONAS Tutela ATF 500 HD is a high-quality Automatic Transmission Fluid for buses, coaches and commercial vehicles, delivering total protection even in most severe conditions for today's automatic transmissions over their standard service life. Its wide coverage of major manufacturer specifications, thanks to extensive bench testing and field-testing, makes it suitable for use for virtually all heavy-duty automatic transmissions

PETRONAS Tutela ATF 500 HD is approved for Daimler, MAN, Voith, Volvo and ZF automatic transmissions. **Benefits** 

PETRONAS Tutela ATF 500 HD protects your Business Profits and your Vehicle Availability while reducing your operating costs, through:

- Longer Transmission Life driven by:
  - Enhanced anti-wear and gear protection under harsh conditions to extend components life
  - Enhanced thermal and oxidation stability under high temperature, providing viscosity stability to prolong oil life
  - High shear stability for a constant film strength and effective lubrication during the oil service life to protect all moving parts

Provides excellent Driving Experience through:

- Smooth, shudder-free shift performance under both normal and severe operating conditions
- Excellent low temperature viscosity for improved lubrication and shifting comfort during start-up in cold conditions
- Significantly reduced transmission noise

**Approvals, Specifications and Recommendations** 

#### **Specifications:**

- DEXRON®-IIIH
- Allison C-4 (TES-228)
- Bosch TE-ML 09

### Approvals:

- MAN 339 Type L1, Z1, Type V1
- MB-Approval 236.93
- DTFR 13C100 (MB 236.1)
- DTFR 13C170 (MB 236.9)
- Volvo 97341
- VOITH H55.6335.xx
- ZF TE-ML 03D, 04D, 14A, 17C

#### **Performance Level:**

- Allison TES-389B
  - IVECO 18-1807 Class AG3/III
- Volvo 97340
- ZF TE-ML 05L, 09, 21L

Note: Always consult your owner's manual to check recommended viscosity grade and specifications for your specific vehicle

## **Typical Physical Data**

Parameters	Method	Unit	Typical Value
Appearance	-	-	Bright & Clear
Color	-	-	Red
Density @15°C	ASTM D 4052	g/cm <sup>3</sup>	0.860
Kinematic Viscosity @100°C	ASTM D 445	mm <sup>2</sup> /s (cSt)	7.7
Kinematic Viscosity @40°C	ASTM D 445	mm <sup>2</sup> /s (cSt)	38
Viscosity Index	ASTM D 2270	-	177
Brookfield Viscosity @-40°C	ASTM D 2983	mPa.s (cP)	18000
Pour Point	ASTM D 97	٦°	-45
Flash Point COC	ASTM D 92	°C	214

All technical data is provided for reference only. These characteristics are typical of current production. Whilst future production will conform to PLI's specification, variations in these characteristics may occur.

#### **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 refers to product SDS or contact us at: www.plipetronas.com

#### **Important Note**

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Safety Data Sheets are available for all our products and should be 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 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 representative in the event you require any further information.

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