

# **PENNZOIL<sup>®</sup> EURO AV 5W-30** FULL SYNTHETIC MOTOR OIL

## TECHNICAL DATA SHEET



Full Synthetic Motor Oil tailored to meet the demanding requirements of high-performance engines, including Audi and VW and including Tdi (Turbo Diesel) using diesel fuel injector pump.

### **PERFORMANCE, FEATURES & BENEFITS**

#### **Fuel Economy**

Passes the ACEA Fuel Economy MB M111 FE (CEC-L-54-T-96) requirement with a minimum of 2.5% fuel economy improvement (average of three results).

#### **Volkswagen specific in-house tests**

Passes the VW PV 1449 (T4) test, which includes limits on viscosity increases and piston deposits.

Passes the VW PC 1452 (Tdi) test which includes limits for ring sticking and piston cleanliness.

Passes the VW seals tests.

#### **Engine wear and durability**

Passes the Peugeot TU3M valve-train scuffing wear test (CEC-L-38-A-94), which includes a limit for cam wear.

Passes the OM646LA test (CEC-L-099-08), which includes limits for cam wear (inlet/outlet), cylinder wear, bore polish, tappet wear (inlet/outlet), piston cleanliness and engine sludge.

#### **Engine cleanliness**

Passes the Peugeot TU5JP-L4 high-temperature deposits test (CEC-L-88-T-02) which includes limits for ring sticking and piston varnish.

Passes the VW Tdi piston cleanliness test (CEC-L-78-T-99).

Passes the ASTM Sequence VG engine sludge test (ASTM D6593).

Passes the MB M111 engine sludge test.

#### **Soot Control**

Passes the DV4TD medium-temperature dispersivity test (CEC-L-093-04).

### **MAIN APPLICATIONS**

Full Synthetic Motor Oil tailored to meet the demanding requirements of high-performance engines, including Audi and VW and including Tdi (Turbo Diesel) using diesel fuel injector pump. Suitable for use in vehicles requiring VW 505.01 specification. Also suitable for vehicles requiring VW 502.00 & VW 505.00.

### **SPECIFICATIONS, APPROVALS & RECOMMENDATIONS**

- VW 502.00/505.01/505.00

Exceeds the requirements of the following industry specifications:

- ACEA C3
- API SN

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Help Desk.

To find the right Pennzoil<sup>®</sup> product for your vehicles and equipment, please consult [www.pennzoil.com](http://www.pennzoil.com) to look up the right motor oil recommendation using our oil selector.

# PENNZOIL® EURO AV 5W-30 FULL SYNTHETIC MOTOR OIL

## TYPICAL PHYSICAL CHARACTERISTICS

Properties		Method	Pennzoil® Euro AV
Viscosity Grade		SAE J300	5W-30
API Service Category			N/A
ILSAC			N/A
ACEA			C3
Density	kg/m <sup>3</sup>	ASTM D4052	853
Flash Point	°C	ASTM D93	197
Pour Point	°C	ASTM D97	-36
Kinematic Viscosity	@40°C mm <sup>2</sup> /s	ASTM D445	70.8
Kinematic Viscosity	@100°C mm <sup>2</sup> /s	ASTM D445	12.2
Viscosity Index		ASTM D2270	171
CCS Viscosity	@-30°C cP	ASTM D5293	6 150
MRV Viscosity	@-35°C cP	ASTM D4684	32 900

These characteristics are typical of current production. While future production will conform to Pennzoil's® specification, variations in these characteristics may occur.

## HEALTH, SAFETY & ENVIRONMENT

### Health and Safety

This product is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from [www.epc.shell.com](http://www.epc.shell.com)

### Protect the Environment

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

## ADDITIONAL INFORMATION

### Advice

Advice on applications not covered here may be obtained from your Shell Lubricants distributor representative or Shell Technical Help Desk.