## DATA BULLETIN

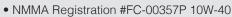


# Formula 4-Stroke<sup>®</sup> Marine Synthetic Motor Oil 10W-30 & 10W-40

AMSOIL Formula 4-Stroke<sup>®</sup> Marine Synthetic Motor Oil is a premiumquality synthetic formulation engineered for the harsh operating conditions of marine environments. It withstands the intense mechanical action of continuous, high-rpm operation to deliver superior viscosity protection. Formula 4-Stroke Marine Synthetic Motor Oil is specially fortified with a heavy treatment of advanced additives that protect motors against wear, rust and deposits. It excels in high-horsepower applications and all-day trolling conditions.

## **NMMA Certified**

Formula 4-Stroke Marine Synthetic Motor Oil is certified by the National Marine Manufacturers Association (NMMA) for use in four-stroke outboard motors. This high-quality oil demonstrates outstanding performance and meets the requirements of the NMMA FC-W Catalyst Compatible specification, which is backward-compatible with the FC-W specification.



• NMMA Registration #FC-00358P 10W-30

#### **Superior Protection Against Engine Wear**

Marine engines operate under high loads and rpm for extended periods of time, causing traditional automotive oils to break down and lose viscosity. AMSOIL Formula 4-Stroke Marine Synthetic Motor Oil is specifically designed to provide excellent shear stability, outperforming competitive oils to deliver a superior lubricating film. Formula 4-Stroke Synthetic Oil contains robust anti-wear additives that further reduce wear in metal-to-metal contact regions, extending the lives of marine engines.

#### **Excellent Anti-Rust Performance**

Marine engines are prone to rust, leading to uncontrolled wear and premature engine failure. Good rust protection is not natural to motor oil; it comes only by design. Formula 4-Stroke Marine Synthetic Motor Oil is fortified with a special anti-rust agent, even more than required to pass stringent NMMA FC-W and FC-W Catalyst Compatible anti-rust testing.



# TYPICAL TECHNICAL PROPERTIES AMSOIL Formula 4-Stroke Marine Synthetic Motor Oil

10W-30 (WCT)	10W-40 (WCF)
Kinematic Viscosity @ 100°C, cSt (ASTM D445) 11.8	14.1
Kinematic Viscosity @ 40°C, cSt (ASTM D445)	93.3
Viscosity Index (ASTM D2270) 151	155
Pour Point °C (°F) (ASTM D97)	-38 (-36)
Flash Point °C (°F) (ASTM D92)	240 (464)
High-Temperature/High-Shear Viscosity (ASTM D5481)	4.2
(ASTM D4172 @ 40kgf, 150°C 1800 rpm, 1 hr), Scar, mm	0.40
Noack Volatility, % weight loss (g/100g) (ASTM D5800)	7.5
Total Base Number	7.9

## **APPLICATIONS**

AMSOIL Formula 4-Stroke Marine Synthetic Motor Oil is recommended for gasoline-fueled four-stroke outboard, inboard, inboard/outboard (I/O) and personal watercraft motors. Use the appropriate viscosity grade where specified in the following:

Honda<sup>®</sup>, Mercury<sup>®</sup>, Yamaha<sup>®</sup>, Johnson<sup>®</sup>/Evinrude<sup>®</sup>, Bombardier/ BRP<sup>®</sup>, Suzuki<sup>®</sup>, Nissan<sup>®</sup>, Tohatsu<sup>®</sup>, OMC<sup>®</sup>, Volvo Penta<sup>®</sup>, Mercruiser<sup>®</sup>, Chevrolet<sup>®</sup>, Ford<sup>®</sup>

**Note:** AMSOIL Formula 4-Stroke Marine Synthetic 10W-40 is recommended for use in place of 25W-40 as specified by Mercury<sup>®</sup>.

**Note:** AMSOIL Formula 4-Stroke Marine Synthetic 10W-30 is recommended for use in place of 5W-30 as specified by Honda<sup>®</sup>.

NMMA FC-W Catalyst Compatible • API SM

## SERVICE LIFE

- <u>Four-stroke outboard motors and personal watercraft</u> <u>applications:</u> Due to potential fuel dilution or water contamination, change oil at the engine or watercraft manufacturer-recommended interval.
- <u>Inboard and I/O applications:</u> Change oil at two times the engine manufacturer-recommended interval or one year, whichever comes first.

## COMPATIBILITY

AMSOIL Formula 4-Stroke Marine Synthetic Motor Oil is compatible with conventional and synthetic motor oils. Mixing AMSOIL motor oils with other oils, however, will shorten the oil's life expectancy and reduce the performance benefits. AMSOIL does not support extended drain intervals where oils have been mixed.

Aftermarket oil additives are <u>not recommended</u> for use with AMSOIL motor oils.

#### **AMSOIL PRODUCT WARRANTY**

AMSOIL products are backed by a Limited Liability Warranty. For complete information visit www.amsoil.com/warranty.aspx.

# **HEALTH & SAFETY**

This product is not expected to cause health concerns when used for the intended application and according to the recommendations in the Safety Data Sheet (SDS). An SDS is available online at www.amsoil.com or upon request at (715) 392-7101. **Keep Out of Reach of Children**. Recycle used oil and bottle.



The First in Synthetics ®

AMSOIL products and Dealership information are available from your local full-service AMSOIL Dealer.