DATA BULLETIN



# DOMINATOR® Synthetic 2-Stroke Racing Oil

Racers can't win what they don't finish. That's why AMSOIL formulators built DOMINATOR® 2-Stroke Racing Oil. This complex blend of oils and additives directly addresses the heat, pressure and friction of race-engineered engines. These engines operate on the edge, yet engine reliability is critical. DOMINATOR does an outstanding job protecting high-performance engines. It adds durability that professional racing teams depend on and delivers confidence so engines can be pushed to the limit.

# **Excellent Lubricity and Film Strength**

High-performance and race-designed two-stroke engines operate under severe conditions. They are modified for higher compression ratios, higher rpm and leaner combustion, all of which increase heat and pressure. High heat can quickly burn off light oils and cause rapid piston expansion, decreasing piston-to-cylinder wall clearances and increasing the likelihood of piston scuffing and seizure. High pressure can exceed the film strength of low-viscosity oils, which promotes crankshaft bearing wear and pitting.

DOMINATOR is purpose-built for outstanding film strength and lubricity. It is engineered with carefully selected, higher-viscosity synthetic base oils to withstand the high heat and pressure common to high-performance and racing applications. DOMINATOR's anti-friction chemistry is race-proven to provide an extra measure of protection against piston scuffing and bearing wear.

### **Outstanding Cleanliness**

The oil and fuel burned in the two-stroke combustion process leave destructive deposits on the pistons, rings and in the combustion chamber. Excessive deposits can lead to catastrophic engine problems, including ring sticking, exhaust port blocking and pre-ignition.

AMSOIL DOMINATOR is formulated with clean-burning synthetic base oils and powerful high-temperature detergent additives for exceptional deposit control. It helps prevent the power-robbing carbon deposits that cause ring sticking, exhaust port blocking and pre-ignition. AMSOIL DOMINATOR is optimized for severe service.



# **Race-Proven Benefits**

- Excellent film strength for high-heat, high-rpm motors
- Anti-friction formula for maximum power
- Burns clean; helps prevent ring sticking and plug fouling
- Protects coated and noncoated racing pistons

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### TYPICAL TECHNICAL PROPERTIES

### DOMINATOR® Synthetic 2-Stroke Racing Oil (TDR)

Kinematic Viscosity @ 100°C, cSt (ASTM D445) 7	7.0	Pour Point °C (°F) (ASTM D97)	-54 (-65)
Kinematic Viscosity @ 40°C, cSt (ASTM D445) 35	5.2	Flash Point °C (°F) (ASTM D92)	94 (201)
/iscosity Index (ASTM D2270)1	66	Fire Point °C (°F) (ASTM D92)	94 (201)

#### RACING IS RESEARCH™

During the opening weekend of the 2015/16 AMSOIL Championship Snocross season, professional rider Lincoln Lemieux's Ski-Doo\* RS600 suffered a broken hose clamp, allowing the coolant to pump from the system. The intense heat that resulted melted the exhaust power valve covers, O-rings and engine gaskets. DOMINATOR Synthetic 2-Stroke Racing Oil, however, delivered exceptional protection despite the severe conditions. The rings and pistons were still free and the crankshaft turned freely. Scheuring Speed Sports is able to reuse the engine after repairing the melted parts, providing concrete testimony of DOMINATOR's superior performance.



Melted gaskets and exhaust power valve cover



The pistons suffered only minor scuffing.

#### **APPLICATIONS**

Use in high-performance stock or modified two-stroke engines, including air- or liquid-cooled snowmobiles, personal watercraft, motorstrokes (moto X), ATVs, go-carts and outboard motors\*\*. Good for use with coated or non-coated pistons, high-octane racing fuels and exhaust power valves. Compatible with most other two-stroke oils; however, mixing oils should be minimized.

Use in oil-injected and pre-mix applications that require API TC oils. In pre-mix applications, DOMINATOR delivers outstanding protection at 50:1 (2.6 oz. oil per U.S. gallon of gas), although many racers modify the mix ratio to suit their setup. Not suitable for use with alcohol or nitro-methane fuels.

#### **WARRANTY SECURE®**

DOMINATOR Synthetic 2-Stroke Racing Oil is Warranty Secure, keeping your factory warranty intact. DOMINATOR Synthetic 2-Stroke Racing Oil is a high-performance replacement for vehicle manufacturer-branded products and is also backed by the AMSOIL Limited Warranty. For details, visit



# **HEALTH & SAFETY**

www.amsoil.com/warrantvsecure.

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 via the Internet at www.amsoil.com or upon request at (715) 392-7101. Keep Out of Reach of Children. Recycle used oil and bottle.

<sup>\*\*</sup>Not suitable for long-term use in outboard motors as a TC-W3-type oil, although excellent as a race oil for short-term use where motors are periodically inspected.



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

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