

4 Stroke Powersports

AMSOIL 10W-50 100% SYNTHETIC DIRT BIKE OIL

Product Code: DB50QT-EA

Boost dirt bike performance with superior clutch feel, wear protection, and heat resistance for reliable power in every ride.



Product Description

AMSOIL 10W-50 100% Synthetic Dirt Bike Oil is a purpose-built synthetic motorcycle oil engineered to deliver consistent clutch engagement, superior wear protection and heat resistance in four-stroke dirt bikes that call for a 10W-50 viscosity. It is the go-to oil for KTM, Kawasaki, Yamaha, Suzuki and Husqvarna riders who want predictable power delivery from the gate drop to the checkered flag.

Four-stroke dirt bike engines share oil between the engine, transmission and wet clutch. That single sump has to handle extreme heat from high-rpm operation, heavy mechanical shear from gearbox loads, and precise friction requirements from the clutch pack. Most automotive oils and even some motorcycle oils compromise in at least one of those areas. An oil that is too slippery causes clutch slip. One that shears down under load leaves gears and bearings exposed. AMSOIL Synthetic Dirt Bike Oil was formulated from the ground up to handle all three jobs without compromise.

CONSISTENT CLUTCH FEEL FROM START TO FINISH

Clutch fade and inconsistent lever feel cost you positions. In an extreme simulated-start test, AMSOIL 10W-50 Synthetic Dirt Bike Oil delivered consistent clutch engagement through 32 simulated race starts. A leading OEM-branded oil showed inconsistent clutch-lever action and poor clutch feel after only 16 starts. When the clutch plates were inspected, the plates lubricated with AMSOIL remained clean and in good overall condition. The OEM oil plates showed visible discoloration and wear. That translates directly to confidence on holeshots and predictable modulation when picking through tight single-track on a KTM 350 SX-F or Husqvarna FC 450.

PROTECTS GEARS, BEARINGS AND PISTONS

Dirt bike transmissions take a beating. Aggressive downshifts, missed shifts and constant gear changes under heavy throttle all generate shock loads that shear oil films. AMSOIL Synthetic Dirt Bike Oil uses synthetic base oils that naturally resist viscosity loss from mechanical shear, maintaining a thick protective film between metal surfaces even under high-rpm, high-temperature operation. In Four-Ball Wear testing (ASTM D4172 at 40 kgf, 150 degC, 1800 rpm, 1 hr), the 10W-50 produced a wear scar of just 0.52 mm. Premium anti-wear additives supplement that film strength to protect pistons, cam lobes, gears and crank bearings, reducing maintenance costs and extending the life of expensive internal components.

RESISTS HEAT AND VISCOSITY BREAKDOWN

Air-cooled and liquid-cooled dirt bike engines regularly see extreme oil temperatures, especially during slow technical riding or long moto sessions. AMSOIL 10W-50 Synthetic Dirt Bike Oil posts a NOACK volatility of just 4.1% weight loss (ASTM D5800), meaning it resists evaporation and thermal breakdown at sustained high temperatures. Its High-Temperature/High-Shear viscosity at 150 degC measures 4.9 cP (ASTM D5481), confirming it maintains a robust protective film under the combination of extreme heat and

mechanical stress that dirt bike engines generate. The result is stable viscosity and reliable protection throughout your oil change interval.

MAXIMIZES HORSEPOWER

Every bit of friction the oil generates inside the engine is energy that does not reach the rear wheel. AMSOIL Synthetic Dirt Bike Oil is formulated to reduce internal drag from the engine and transmission while still providing the friction properties the wet clutch needs to engage cleanly. That balance means more usable horsepower at the rear wheel without sacrificing clutch performance. Riders on Yamaha YZ450F, Kawasaki KX450 and Suzuki RM-Z450 machines report smoother shifting and better throttle response.

SPECIFICATIONS AND COMPATIBILITY

AMSOIL 10W-50 Synthetic Dirt Bike Oil meets JASO MA and API SG, SJ, SH, SL specifications. It is designed for dirt bikes requiring 10W-50 motorcycle oil, including models from KTM, Kawasaki, Yamaha, Suzuki and Husqvarna. This includes popular separate-sump applications like the Honda CRF platform as well as many two-stroke dirt bikes with separate engine oil requirements. The oil is compatible with other synthetic and conventional motor oils, though mixing will reduce the performance benefits and life expectancy of the AMSOIL product. Aftermarket oil additives are not recommended. AMSOIL Synthetic Dirt Bike Oil is Warranty Secure, keeping your factory warranty intact.

SERVICE LIFE

Change AMSOIL 10W-50 Synthetic Dirt Bike Oil according to the vehicle manufacturer's recommendations.

Technical Specifications

Property	DB50	Test Method
Kinematic Viscosity @ 100 degC, cSt	18.1	ASTM D445
Kinematic Viscosity @ 40 degC, cSt	120.8	ASTM D445
Viscosity Index	167	ASTM D2270
Flash Point, degC (degF)	246 (475)	ASTM D92
Fire Point, degC (degF)	272 (522)	ASTM D92
Pour Point, degC (degF)	-38 (-36)	ASTM D97
NOACK Volatility, % weight loss (g/100g)	4.1	ASTM D5800
High-Temperature/High-Shear Viscosity @150 degC, 1.4 x 106 s-1, cP	4.9	ASTM D5481
Four-Ball Wear Test (40 kgf, 150 degC, 1800 rpm, 1 hr), scar, mm	0.52	ASTM D4192
Foam (Sequence I, II & III)	0/0, 20/0, 0/0	ASTM D5182
Total Base Number	7.6	--

Frequently Asked Questions

Q1: What dirt bikes use AMSOIL 10W-50 Synthetic Dirt Bike Oil?

AMSOIL 10W-50 100% Synthetic Dirt Bike Oil (DB50QT) is designed for dirt bikes that require 10W-50 motorcycle oil, including models made by KTM, Kawasaki, Yamaha, Suzuki, and Husqvarna. It meets JASO MA and API SG, SH, SJ, and SL specifications, making it suitable for a wide range of four-stroke dirt bikes requiring this viscosity grade.

Q2: How does AMSOIL 10W-50 Dirt Bike Oil improve clutch feel and performance?

AMSOIL 10W-50 Synthetic Dirt Bike Oil's superior friction-durability properties help minimize clutch slippage, fade, and chatter, delivering consistent clutch feel during takeoffs and trail maneuvering. In an extreme simulated-start test, AMSOIL Synthetic Dirt Bike Oil continued to deliver consistent clutch feel after 32 simulated race starts, while a leading OEM-branded oil showed inconsistent clutch-lever action and poor clutch feel after just 16 starts. The clutch plates lubricated with AMSOIL remained clean and in good condition, while the OEM oil caused discoloration and wear.

Q3: What specifications does AMSOIL 10W-50 Synthetic Dirt Bike Oil meet?

AMSOIL 10W-50 Synthetic Dirt Bike Oil meets JASO MA and API SG, SH, SJ, and SL specifications. The JASO MA rating confirms it is formulated for wet-clutch motorcycle applications, ensuring proper friction characteristics for shared engine-transmission-clutch lubrication systems common in dirt bikes. The product was also fine-tuned through extensive on-track testing with professional riders, combining racer feedback with lab testing.

Q4: How does AMSOIL 10W-50 Dirt Bike Oil compare to OEM dirt bike oil?

In an extreme simulated-start test, AMSOIL 10W-50 Synthetic Dirt Bike Oil delivered consistent clutch feel through 32 simulated race starts -- double the 16 starts at which a leading OEM-branded oil began showing inconsistent clutch-lever action and poor clutch feel. The clutch plates lubricated with AMSOIL remained clean and in good overall condition, while the OEM oil caused visible discoloration and wear. AMSOIL's synthetic base oils also naturally resist viscosity loss from high-rpm operation, extreme heat, and mechanical shear better than conventional formulations.

Q5: How often should I change AMSOIL 10W-50 Synthetic Dirt Bike Oil?

AMSOIL recommends changing 10W-50 Synthetic Dirt Bike Oil according to the vehicle manufacturer's recommendations for oil change intervals. AMSOIL does not support extended drain intervals where oils have been mixed with other synthetic or conventional motor oils. Aftermarket oil additives are also not recommended for use with this product.

Q6: Is AMSOIL 10W-50 Dirt Bike Oil compatible with other oils and will it void my warranty?

AMSOIL 10W-50 Synthetic Dirt Bike Oil is compatible with other synthetic and conventional motor oils, though mixing will shorten the oil's life expectancy and reduce its performance benefits. The product is Warranty Secure, meaning it keeps your factory warranty intact as a high-performance replacement for vehicle manufacturer-branded products. It is also backed by the AMSOIL Limited Warranty. Aftermarket oil additives are not recommended for use with this oil.

Available Product Codes

Product Code	Package Size	Unit of Measure
DB50QT-EA	Quart Bottle	Each
DB50QT-CA	Quart Bottle	Case of 12

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