



RED LINE SYNTHETIC OIL CORP.

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Synthetic Automatic Transmission Fluids

Red Line Synthetic Automatic Transmission Fluids are designed to provide excellent low-temperature shiftability and improved thermal stability. The products identified as Synthetic ATF, Synthetic D4 ATF, Synthetic D6 ATF, and Synthetic C+ ATF have better thermal stability and lower volatility characteristics than a petroleum ATF and provides a much lower viscosity at lower temperatures, providing much quicker shifting in cold weather. The balanced frictional characteristics provides smooth and consistent shifts for extended drain intervals. The superior stability compared to petroleum ATFs allows high-temperature operation without varnishing valves and clutches which leads to transmission failure.

Synthetic ATF product is suitable for use where GM Dexron® II, Ford Mercon®, and Mercedes Benz Automatic Transmission Fluid and is suitable for GM, late model Ford, or any vehicle which recommends Dexron® IID or Dexron® IIE or Mercon® for refill.

Synthetic D4 ATF is suitable for use where Dexron® III, Dexron® III H, Dexron® II, Toyota T-IV, Hyundai, Voith, ZF, Nissan Matic-J, Honda Z-1, Mercon®, or Mercon® V fluids are recommended. The D4 ATF is designed with superior low-temperature properties compared to a Dexron® III fluid, and the improved shear-stability requirements which is part of the new Mercon® V specifications. The D4 ATF also provides significantly improved gear protection and will provide a GL-4 level of gear protection, making it a superior product for transmissions and transaxles. The balanced frictional characteristics provides smooth and consistent shifts for extended drain intervals. The superior stability compared to petroleum ATFs allows high-temperature operation without varnishing valves and clutches which leads to transmission failure.

Synthetic D6 ATF is suitable for use in the new Dexron® VI applications, Mercon® SP, or Toyota WS fluids are recommended. The D6 ATF is a lower viscosity version of the D4ATF and is designed for better fuel efficiency in CAFE testing. Dexron® VI requires a different approach to conventional ATF formulation. Rather than beginning with a 7.5 cSt fluid and allowing a viscosity loss in use to drop to 5.5 cSt, the Dexron® VI fluid requires a starting viscosity of less than 6.4 and a final drop to no less than 5.5 cSt. Red Line D6 will drop to no less than 6.1 cSt. Since the final viscosity after use of these fluids are similar, Dexron® VI fluids can be used where Dexron® III fluids were previously recommended. The D6 ATF also provides significantly improved gear protection and will provide a GL-4 level of gear protection, making it a superior product for transmissions and transaxles. The balanced frictional characteristics provides smooth and consistent shifts for extended drain intervals. The superior stability compared to petroleum ATFs allows high-temperature operation without varnishing valves and clutches which leads to transmission failure.

Synthetic High-Temp ATF provides the gear protection of a GL-4 gear oil in an ATF and provides a higher viscosity at higher operating temperatures, allowing the transmission to operate at 70°F higher temperature and still provide the optimal shiftability and improved torque converter efficiency. The evaporation characteristics are significantly improved, being twice as good as our Synthetic ATF and five-times better than a petroleum ATF. The improved thermal stability significantly reduces the rapid evaporation of the ATF which can produce a frothing out the filler tube. The balanced frictional characteristics provides smooth and consistent shifts for extended drain intervals. The superior stability compared to petroleum ATFs allows high-temperature operation without varnishing valves and clutches which leads to transmission failure. High-Temp ATF is perfect for heavily-loaded vehicles which see high temperatures and automatic transaxles which are benefitted by the extreme-pressure protection of a GL-4 gear oil to lubricate the final drive. This product can be used in manual transmissions which require ATFs and will provide much better gear protection than a petroleum ATF; however, MTL® will provide better wear protection and better low-temperature shiftability in most manual transmissions which call for an ATF. High-Temp ATF is suitable for use in automatic and manual transmissions and transaxles where Dexron® III, Dexron® II or Mercon® is recommended.

Synthetic Racing ATFs are designed for use in racing automatic transmissions which need the positive shift of a Type-F automatic transmission fluid. They are available in a higher viscosity Racing ATF, and a lower viscosity LightWeight Racing ATF. These ATFs contains no slipperiness additives, producing faster shifts and quicker lock-up, and can reduce elapsed time in drag racing. The enhanced extreme-pressure protection provides five-times better film strength when compared to petroleum ATFs, reducing gear and clutch wear considerably. These products are designed to be used where Type-F fluids are recommended or for racing transmissions which need quicker shifts than provided with Dexron® fluids. These products can also be used in manual transmissions which require ATFs, providing better gear wear and better shiftability, but Red Line MTL® will provide even better wear protection and shiftability.

RED LINE C+ ATF satisfies the performance requirements of Chrysler MS7176, ATF+, ATF+2, ATF+3, and ATF+4 while providing 30% greater operating viscosity, 1/3 the evaporation of petroleum ATFs, and improved oxidation and sludge protection. Red Line C+ ATF provides the exact frictional characteristics required in the MS7176 specification, providing proper shift feel and proper lockup torque converter operation. The use of an improper fluid could cause torque converter shudder or harsh shifting. Red Line C+ ATF also provides the best low-temperature shiftability in automatic transmissions allowing proper shifting at extremely low temperatures and will flow down to temperatures as low as -60°C. The improved wear protection makes C+ ATF the perfect automatic transmission or transaxle fluid for Chrysler vehicles.

Typical Properties

	Synthetic D6 ATF	Synthetic D4 ATF	Synthetic ATF	Synthetic High-Temp ATF	Synthetic Racing ATF	LightWeight Racing ATF	Synthetic C+ ATF
Recommended use:	Dexron® VI Dexron® Mercon® SP Toyota WS MB NAG-2 API GL-4	Dexron® III Mercon® Mercon® V Toyota T-IV Honda Z-1 Nissan Matic-J API GL-4	Dexron® II Mercon®	Dexron® III Mercon® Mercon® V Toyota T-IV API GL-4	Ford Type F API GL-4	Ford Type F API GL-4	Chrysler Mopar® 7176 ATF+3 ATF+4
Vis @ 100°C, cSt	6.4	7.5	7.2	10.0	10.0	4.9	7.5
Vis @ 40°C, cSt	30.7	34.0	32.5	53.9	53.7	23.2	32.3
Viscosity Index	166	198	197	172	177	140	213
Brookfield Vis@-40°C,P	45	52	45	175	150	75	38
Pour Point, °C	-60	-60	-51	-51	-50	-50	-60
Pour Point, °F	-76	-76	-60	-60	-58	-58	-76
Flash Point, °C	249	225	224	238	238	240	222
Flash Point, °F	480	437	435	460	460	464	432

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