



RED LINE SYNTHETIC OIL CORP.

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TECHNICAL INFORMATION SYNTHETIC AUTOMATIC TRANSMISSION FLUIDS

Red Line Synthetic Automatic Transmission Fluids are designed to provide excellent low-temperature shiftability and improved thermal stability. The product identified as Synthetic ATF, Synthetic D4 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 an approved 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 II, or Mercon fluids are recommended. The D4 ATF is designed to satisfy the improved low-temperature requirements which will be in the new Dexron IV specification. and the improved shear-stability requirements which will be part of the new Mercon 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 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 benefited 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 ATF is designed for use in racing automatic transmissions which need the positive shift of a Type-F automatic transmission fluid. This ATF contains no slipperiness additives, producing faster shifts and quicker lock-up, and can reduce elapsed time in drag racing. A higher viscosity compared to conventional Type-F transmission fluids provides higher torque converter efficiency at higher temperatures and the enhanced extreme-pressure protection provides five-times better film strength when compared to petroleum ATFs, reducing gear and clutch wear considerably. This product is designed to be used where Type-F fluids are recommended or for racing transmissions which need quicker shifts than provided with Dexron II fluids. This product 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, and ATF +3 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 D4 ATF	Synthetic ATF	Synthetic High-Temp ATF	Synthetic Racing ATF	Synthetic C+ATF
Recommended use:	Dexron III/ Mercon API GL-4	Dexron II/ Mercon	Dexron III/ Mercon API GL-4	Ford Type F	Chrysler Mopar 7176
Vis @ 100°C, cSt	7.5	7.2	10.0	10.0	7.5
Vis @ 40°C, cSt	34.0	32.5	53.9	56.0	32.3
Viscosity Index	198	197	172	170	213
Brookfield Vis @ -40°C, Poise	52	45	175	180	38
Pour Point, °C	-60	-51	-51	-50	-60
Pour Point, °F	-76	-60	-60	-58	-76
Flash Point, °C	225	224	232	232	222
Flash Point, °F	437	435	450	450	432