PETRO-CANADA LUBRICANTS

A HOLLYFRONTIER BUSINESS

TECH DATA

DURADRIVE™ LOW VISCOSITY MV SYNTHETIC ATF

MULTI-VEHICLE AUTOMATIC TRANSMISSION FLUID

INTRODUCTION

Petro-Canada DuraDrive™ Low Viscosity MV Synthetic ATF (Automatic Transmission Fluid) is a full synthetic low viscosity formulation that offers true multi-vehicle performance, outstanding wear protection, and exceptional fluid life. This fluid is approved by General Motors (DEXRON®-VI) and Ford (MERCON® LV) for service fill applications. It provides the frictional properties, wear protection and viscometrics needed by most newer North American, Asian, and European automatic transmissions. It is specially formulated to provide consistent shift feel and transmission protection over a long fluid life. DuraDrive Low Viscosity MV Synthetic ATF's benefits include excellent oxidation and shear stability, outstanding wear protection, and exceptional low temperature fluidity. This product was formulated to improve fuel economy by virtue of its lower viscosity.

DuraDrive Low Viscosity MV Synthetic ATF uses Petro-Canada's 99.9% pure PURITY™ VHVI synthetic base oils. Used in combination with leading edge additive technology this allows DuraDrive Low Viscosity MV Synthetic ATF to retain its "fresh oil" properties longer, thereby delivering exceptional performance and savings. DuraDrive Low Viscosity MV Synthetic ATF also provides savings through inventory consolidation by offering true multi- vehicle performance.

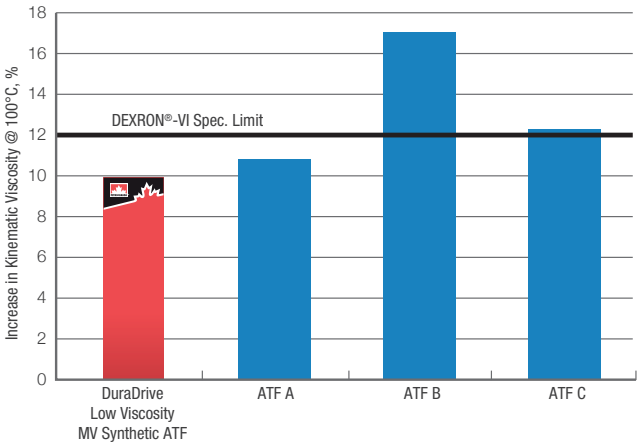
FEATURES AND BENEFITS

Excellent resistance to oxidative and thermal breakdown

- Prevents corrosion and the formation of harmful sludge and deposits. Keeps transmissions clean & functioning properly
- Protects clutches from glazing
- Passes General Motor's DKA Oxidation Test and Ford's Aluminum Beaker Oxidation Test (ABOT) illustrating excellent oxidation resistance
- Maintains the transmission functioning at peak performance and at optimal fuel efficiency

Oxidation Resistance of DuraDrive low Viscosity MV Synthetic ATF vs. Competitor* ATFs

CEC-L-48-00 DKA Oxidation Test (175°C for 192 hours)



*Competitor products claiming formal DEXRON®-VI and MERCON® LV

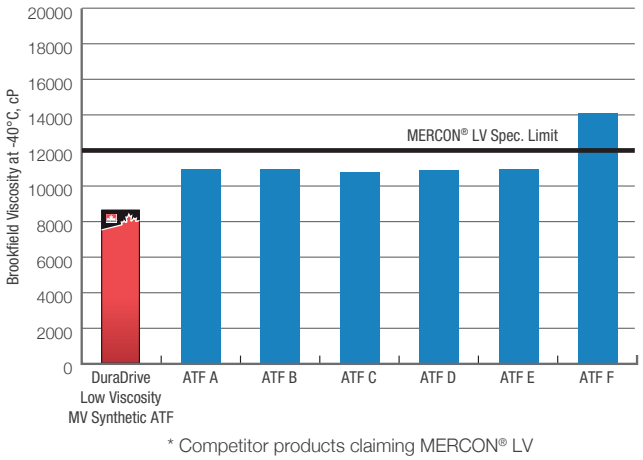
DuraDrive Low Viscosity MV Synthetic ATF shows superior oxidation stability compared to the competitor products tested claiming formal DEXRON®-VI and MERCON® LV.

Petro-Canada Lubricants starts with the HT purity process to produce water-white, 99.9% pure base oils. The result is a range of lubricants, specialty fluids and greases that deliver maximum performance for our customers.

MAXIMUM PERFORMANCE • PERFORMANCE MAXIMALE • HT ™

Exceptional low temperature fluidity and high temperature protection

- Delivers quick lubrication of transmission components in cold weather
- Lower viscosity to achieve better fuel economy
- Maintains desired viscosity & oil film strength in high temperature operation
- Earlier drive away and smooth gear shifting during low temperature operation
- Efficient heat removal from clutch surfaces; extends clutch life



DuraDrive Low Viscosity MV Synthetic ATF protects transmission components better in extreme cold temperatures and easily meets the MERCON® LV Brookfield Viscosity specification limit of 12,000 cP max at -40°C.

Outstanding wear protection

- Reduces wear on bearings, bushings and gears
- Extends transmission life

Compatible with all transmission seal materials

- Helps to maintain seal integrity and prevent leaks

Outstanding anti-shudder durability and stable friction properties

- Excellent shift quality throughout service life
- Avoids vehicle shudder while stopped
- Maintains transmission efficiency & fuel economy
- High torque capacity avoids clutch slippage & wear
- Prevents clutch shudder in modulated torque converters
- Clutch plates and bands last longer

APPLICATIONS

Petro-Canada DuraDrive Low Viscosity MV Synthetic ATF is suitable for use in a wide range of North American, Asian, and European automatic transmissions.

- Fully approved against MERCON® LV (license MLV161104)
- Fully approved against DEXRON®-VI (license J-60185)
- Please consult the Application Charts to view the applications listed where DuraDrive Low Viscosity MV Synthetic ATF would be suitable

DURADRIVE LOW VISCOSITY MV SYNTHETIC ATF APPLICATIONS TABLE

Application	High Viscosity Specification/Vehicle*	DuraDrive Low Viscosity MV Synthetic ATF	Low Viscosity Specification/Vehicle	DuraDrive Low Viscosity MV Synthetic ATF
Passenger Car - North American OEM	Chrysler ATFs (incl. ATF+3®)	SFU	Chrysler/Dodge/Jeep 68043742AA, 05127382AA, 68171866A	SFU
			Chrysler/Dodge/Jeep 68157995AA, 68157995AB, 68218925AA	SFU
	Chrysler/Dodge MOPAR AS 68 RC and AS 69 RC (T-IV), JWS 3309	SFU		
	Ford MERCON®	SFU	Ford MERCON® LV (SF only)	Approved (MLV161104)
	Ford Type F	No	Ford MERCON® SP	No
	Ford FNR5	SFU		
	Ford WSS M2C 922A1, 924A (XT-8-QAW) JWS 3309	SFU		
	GM TASA, DEXRON®-II (IID, IIE) -III (IIIF, IIIG, IIIH)	SFU	GM DEXRON®-VI (SF only)	Approved (J-60185)
	Saturn T-IV (JWS 3309)	SFU		
Passenger Car - Asian OEM	Aisin Warner JWS 3309 (T-IV)	SFU	Aisin Warner JWS 3324 (WS)	SFU
	Daewoo LT 71141	SFU	Aisin Warner AW-1	SFU
	Daihatsu AMMIX ATF D-II, ATF D-III SP	SFU		
	FUSO ATF-II, ATF-SPIII, ATF-A4	SFU		
	Hino Blue Ribbon ATF	SFU		
	Honda ATF Z1 (all except CVTs)/ Acura ATF Z1	SFU	Honda DW-1	SFU
			Honda Type 3.0	SFU
			Honda Type 3.1	SFU
	Hyundai/Kia SP-II, SP-III, JWS 3314, JWS 3317	SFU	Hyundai/Kia SP-IV, SP-IV RR, SP-IV M/ SP4-M	SFU
	Hyundai/Kia 040000C90SG	SFU	Hyundai/Kia NWS-9638	SFU
	ISUZU BESCO ATF-II, ATF-III, ATF SP	SFU		
	ISUZU SCS Fluid	SFU		
	JASO 1A, 2A	SFU	JASO 1A-LV	SFU
	Kia Red-1	SFU		
	Lexus JWS 3309	SFU		
	Mazda ATF S-1, ATF N-1, ATF D-II, ATF F-1, ATF M-III, ATF M-V, ATF 3317	SFU	Mazda ATF FZ	SFU
	Mitsubishi Diaqueen J2, SK	SFU	Mitsubishi Diaqueen J3/Diaqueen ATF PA	SFU
	Mitsubishi Diaqueen SP-II, SP-III	SFU	Mitsubishi SP-IV	SFU
	Nissan 402, Nissan Matic C, D, J, K	SFU	Nissan Matic S	SFU
	Subaru ATF, ATF-HP, DEXRON® II, ATF 5AT	SFU		
	Suzuki 3314, 3317, JWS 3309, AT OIL 5D06, ATF 2326, ATF 2384K	SFU		
	Ssang Yong DSIH 5M-66	SFU		
	Toyota ATF D-II, D-III, T-III, T-IV (JWS 3309)	SFU	Toyota ATF WS (JWS 3324)	SFU
Passenger Car - European OEM	Audi G 052 162, G 052 990, G 055 025	SFU	Audi G 060 162, G 055 540, G 055 005	SFU
	Audi 5HP LT71141 (ZF 5 HP 18FL/19FL/24A)	SFU		
	BMW 7045E (3 Series), 8072B (5 Series), LA 2634, LT 71141 (ZF 5HP 18FL/19FL/24A)	SFU	BMW 83 22 2 152 426	SFU
	BMW JWS 3309 (T-IV)	SFU	BMW ATF 3+ 83 22 2 289 720	SFU
	BMW ZF 5HP18FL, 5HP24, 5HP30	SFU		
	FIAT T-IV type (JWS 3309)	SFU		
	Jaguar ATF 3403, ATF 3403-M115, LT71141, ZF 5HP24, JLM20238, JLM20292, K17	SFU	Jaguar Fluid 8432	SFU
	Mercedes-Benz MB 236.10 (NAG 1 / Shell 3403)	SFU	Jaguar Fluid 02JDE 26444	SFU
	Mercedes-Benz; MB 236.1, 236.2, 236.3, 236.5, 236.6, 236.7, 236.8, 236.9	SFU		
	Mercedes-Benz MB 236.11 (Esso LT 71141)	SFU	Land Rover Fluid LR023288	SFU
	Peugeot Societe Anonyme (PSA) ZF 4HP20	SFU		
	Porsche ZF 5HP19FL, ZF 5HP20, LT71141, ATF 3403-M115, T-IV (JWS 3309)	SFU		
	Renault DPO/AL4, Matic D2, Samsung SATF-D	SFU		
	Saab T-IV (JWS 3309), 96 160 393	SFU	Saab 93 165 147	SFU
	Texaco N402 (JATCO), ETL-7045E (BMW 7045E), ETL-8072B (BMW 5 Series)	SFU		
	Vickers M2950-S, I-286-S	SFU		
	Volvo 4 speed (P/N 1161621)	SFU	Volvo 6 speed MY 2011-2013 (P/N 31256774/ 31256675)	SFU
	Volvo P/N 1161540/1161640	SFU		
	VW G 052 162, G 052 990, G 055 025, TL 521 62	SFU	VW G 060 162, G 055 540, G 055 005	SFU
	VW 5HP (18FL /19FL/ 24A/ 30), ZF 5HP 30	SFU		
	ZF - all 3 & 4 speed transmissions	SFU	ZF - 6 speed transmissions	SFU
	ZF - 5 speed transmissions	SFU	ZF - 8 speed transmissions	SFU
	ZF TE-ML 05L, 09, 11A, 11B, 21L	SFU	ZF - 9 speed transmissions	SFU

- Suitable for Use (SFU) = Supporting data is available to demonstrate acceptable performance (not OEM approved).
- NOT recommended for CVT** and DCT transmissions or when a non-friction modified fluid is recommended (e.g. Ford Type F). Also not recommended for applications requiring Ford MERCON® SP.
- Always consult the vehicle owner's manual for specific transmission fluid recommendations.

* DuraDrive Low Viscosity MV Synthetic ATF is a low viscosity formulation and does not meet the viscosity profiles of these high viscosity specifications.

** Some e-CVT designs require the use of Automatic Transmission Fluids; therefore, DuraDrive Low Viscosity MV Synthetic ATF is suitable for use where "SFU" is claimed for the appropriate ATF Specification/Vehicle.

TYPICAL PERFORMANCE DATA

Property	ASTM Test Method	DuraDrive Low Viscosity MV Synthetic ATF
Density, kg/l @ 15°C (60°F)	ASTM D4052	0.844
Colour	Visual	Red
Flash Point, COC, °C / °F	ASTM D92	218 / 424
Pour Point, °C / °F	ASTM D5950	-51 / -60
Viscosity, cSt @ 40°C / SUS @ 100°F cSt @ 100°C / SUS @ 210°F	ASTM D445	 29.2 / 149 5.9 / 46
Viscosity Index	ASTM D2270	153
Brookfield Viscosity, cP @ -40°C (-40°F)	ASTM D2983	8,773
Qualification Numbers Ford MERCON® LV License Number GM DEXRON®-VI License Number	–	 MLV161104 J-60185
Product Identification Code		DDLVATF

The values quoted above are typical of normal production. They do not constitute a specification.

MERCON® is a registered trademark of Ford Motor Company.
DEXRON® is a registered trademark of General Motors, LLC.

Learn more about us: **lubricants.petro-canada.com**
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Committed to the disciplined operation of our business.

CERTIFIED
ISO 9001: 2015
ISO 14001: 2015
IATF 16949: 2016

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IM-8114E (2020.02)