ProTecta Synthetic Transmission Treatment

For a smoother ride and a longer-lasting transmission select ProTecta synthetic Transmission Treatment. ProTecta will restore friction and anti-shudder control, reduce sludge and formation of deposits, and improve wear protection.

With the popularity of the over drive transmission; today's drivers are experiencing transmission torque converter shudder. Torque converter shudder is caused by the transmission boost valve sticking and pre-mature oxidation of friction modifiers in ATF. ProTecta keeps working when factory fluids have lost their effectiveness.

ProTecta enhances the fluid life with a synthetic formulation for maximum transmission performance. Protect Your Investment! Extend the Life of Your Automatic Transmission. Recommended for use in most all automatic transmissions and 4 x 4 transfer cases.

BENEFITS:

- **Eliminates Torque Converter Shudder**
- **Reduces Friction Wear**
- **Lowers Operating Temperature**
- **Transmission Shifts Like New**
- **Frees Sticking Valves**

Automatic transmissions normally operate at temperatures of 75-95 °C and start up at temperatures as low as -40°C. ATF's must flow easily at low temperatures, be highly resistant to thermal and oxidative degradation at high temperatures, be non-corrosive toward all transmission components, be resistant to foaming and have specialized friction and anti-wear properties. ProTecta utilizes special friction modifiers to provide smooth shifting and protects against heat especially during towing.

A lot has changed with the automatic transmission in the last several years. Computer controlled shifting and front wheel drive. OEM's are rapidly turning to installing synthetic ATF in their luxury vehicles. ProTecta with its unique synthetic formulation provides improved protection to meet the demands of today's sophisticated transmissions.

Pour contents into transmission with motor running at idle speed and transmission in park. Will treat all automatic transmissions up to ten litres of ATF. On large transmissions that require over (10) litres use 30 mL per litre of ATF. For Allison Transmissions use 30 mL per 2 litres of ATF. 4 X 4 Transfer Cases use 30 mL per litre. Be sure to check your owner's manual or dipstick for the correct type and amount of transmission fluid. Do Not Overfill. Call for Technical Assistance

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Question:
Why do I need to add a transmission treatment to my automatic transmission?

Answer:
Transmissions have been very complex and sophisticated and with the popularity of the over drive transmission, operators are discovering torque converter shudder. Torque converter shudder develops as the valve sticks. Overdrive automatic transmissions are constantly shifting up and down, and the valve begins to stick. This creates a more pronounced shift that is called torque converter shudder. ProTecta synthetic Transmission Treatment eliminates torque converter shudder.

With the high price of repairs with an automatic transmission, it is a good idea to treat your transmission for the long run. Repairs can be more than an engine so it is a good idea to provide the extra protection of ProTecta with its synthetic protection. ProTecta contains a special friction modifier that smoothes shifting and it gives you the ultimate protection if you are towing.

Question:
Why Use ProTecta?

Answer:
For a smoother ride and a longer-lasting transmission. ProTecta will restore friction and anti-shudder control, reduce sludge and the formation of deposits and improve wear protection. The cause of transmission torque converter shudder is the sticking of the transmission boost valve and oxidation of friction modifiers in ATF. ProTecta stays in your transmission fluid and keeps working when factory fluids have lost their effectiveness.

Question:
Why have Automatic Transmission Treatments become so popular?

Answer:
In today's cars with the use of overdrive transmissions the gears work all the time. Wear shows up with increasing regularity. With the cost of rebuilding and automatic transmission today, which can be more than an engine rebuild, one has to think about preventative maintenance. ProTecta ensures that your vehicle shifts properly, keeps valves clean to avoid sticking, extends fluid life with synthetic formulation for maximum transmission performance. Every time you hear your overdrive transmission down shift smile as you have ProTecta working for you.

Testing

HEFCAD DEXRON ® III PLATE CLUTCH FRICTION TEST

Description: The DEXRON® III test was conducted for the frictional characteristics of automatic transmission fluid (AFT). It was performed on an automatic transmission place clutch pack immersed in the ATF at 1400C. One half-shaft from the clutches is held stationary and fitted with strain gauges to measure the torque on it. The other half-shaft rotated freely with a motorized flywheel energy source. The motor turns the flywheel at 3600 rpm and then 175 kilopascals (kPa) (40 psi).is applied to the clutch to press the six plates together. The flywheel is stopped within one second. The strain gauges transmit the torque on the stationary half-shaft to a computer and the amount of torque on the stationary half-shaft to a computer and of the amount of torque as the flywheel is stopped. The procedure is then repeated three times per minute for a total of 100 hours

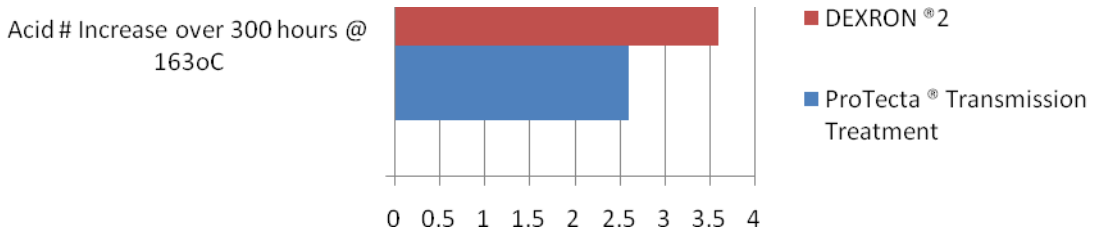
Test	DEXRON ® III with ProTecta Transmission Treatment	DEXRON ® III	
Lock-up time	0.57 – 0.59	0.50 – 0.60	PASS
	DEXRON® III Plate friction test parts conditioning rating with ProTecta Transmission Treatment		
Fibre Plates	The is no flaking, glazing or pitting visible		PASS
Steel Plates	Outer steel show no discolouration and no hot spots		PASS

DEXRON ® III TURBO HYDRA-MATIC OXIDATION TEST

This test is conducted to gauge the thermal and oxidative stability of automatic transmission fluids (ATF). A General Motors 4L60 transmission is utilized for the test. ATF is circulated and an external heater brings the fluid to a constant 163oC. The test is run continuously without interruption for a period of 300 hours throughout the operating transmission with air being injected into it. The transmission is shifted in a set pattern throughout the test at 100, 200 and 250 hours as well as at the end of the test. The fluid is then tested for damage and the transmission in dismantled for measurement purposes.

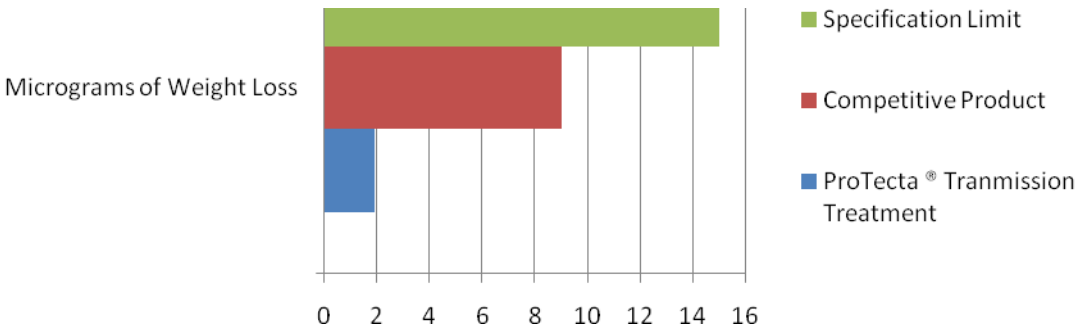
Value	Requirement	Final Result	PASS/FAIL
Ending Viscosity			
cST @ 100oC	>5.4 cSt	7.53 cSt	PASS
CP @ -20oC	<2000 cP	1450 cP	PASS
Total Acid #	<3.25	2.62	PASS
Carbonyl Absorb.	<.45	.41	PASS
Pentane Insoluables		0.01	PASS
Sludge		“Trace”	PASS
Seals		Minor hardening	PASS
Clutches and Bands		No abnormalities	PASS

Conclusion: The clutches, seals and fluid viscosity had no abnormal deductions. Acid formation is reduced due to synthetic base with anti-oxidation additives.



DEXRON ® III VICKERS ® VANE PUMP WEAR TEST

The Dexron ® III Wear test utilizes the Vickers ® sliding vane pump which operates for 100 hours at a temperature of 79.4 oC. General motors factory fill ATF was used with the ProTecta ® Transmission Treatment. The vanes fit into slots in the impeller and are forced against the oval outside ring caused by centrifugal force. They slide in and out in slots following the shape of the oval – creating compartments of fluid. The fluid then enters the large compartment and pressure develops as the space is reduced in size. The vanes slide against the ring continuously causing metal-to-metal contact. When the test is complete the ring and vanes are measured for weight loss of materials. To qualify for DEXRON ® III approval the weight loss can not exceed 15 mg.


Micrograms of Weight Loss
0
2
4
6
8
10
12
14
16
Specification Limit
Competitive Product
ProTecta ® Tranmission Treatment