## Petro-Canada

## **TechData**



# TRAXON™ XL SYNTHETIC BLEND 75W-90 GEAR OIL

#### Introduction

Petro-Canada's TRAXON XL Synthetic Blend 75W-90 is a premium multi-grade gear oil formulated to provide excellent long-lasting wear protection to extend equipment life and reduce downtime and maintenance costs. TRAXON XL Synthetic Blend provides excellent year-round performance for superior lubrication of gear drives found in manual transmissions and rear axles.

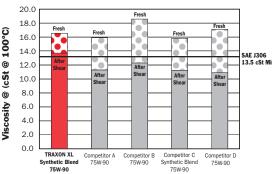
TRAXON XL Synthetic Blend starts with the HT Purity Process to produce a 99.9% pure, crystal clear base oil. By removing the impurities that can hinder the performance of competitive conventional oils, and blending in specialty additives, TRAXON XL Synthetic Blend gear oil delivers maximum performance.

#### **Features and Benefits**

#### **Excellent Wear Protection**

- As a result of its anti-wear EP additives,
  TRAXON XL Synthetic Blend provides excellent
  wear protection as proven by its performance in
  the stringent L-37 wear test. In addition, it has
  excellent shear stability as proven by a severe
  shear test to protect equipment being driven
  longer, harder and faster in tougher conditions
  for extended equipment life and reduced
  maintenance costs
  - Shear stability ensures retention of viscosity which protects equipment components against metal-to-metal contact and wear, especially at higher temperatures
  - Provides superior protection as proven against the five wear parameters of the L-37 test

## 75W-90 GL-5, Gear Oils / Fresh and after KRL Viscosities @ 100°C



The KRL Shear test measures the effects of shearing on gear oil. In order to provide an effective barrier of protection for equipment the after shear viscosity must be a minimum of 13.5 cSt (for an SAE 90 weight oil). TRAXON XL Synthetic Blend exceeds the minimum SAE standards while the competition shears out of grade.

L-37 Wear Parameters (Pinion Side)	Meets Spec	Exceeds Spec
Wear		~
Scoring	V	
Rippling	V	
Ridging		<b>/</b>
Pitting/Spalling		/

L-37 Wear Parameters (Ring Side)	Meets Spec	Exceeds Spec
Wear		~
Scoring	V	
Rippling		<b>V</b>
Ridging		<b>V</b>
Pitting/Spalling		~

The L-37 (ASTM D6121) test is used by individual OEMs, the Military, and Federal Government, to measure five parameters that are the result of distress on gears. TRAXON XL Synthetic Blend 75W-90 meets or exceeds specs on each wear parameter, thereby passing this stringent wear test.

### What is the HT difference?

Petro-Canada 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.



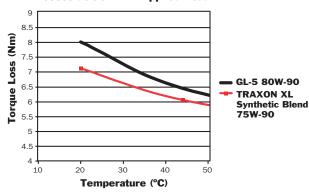
#### **Longer Life**

- Superior oxidation stability provides reduced maintenance costs and increased uptime
  - Extends intervals between changeouts up to 400,000 kms (250,000 miles)\* for maximized oil life
  - Minimizes sludge, varnish or hard carbon deposits for better protection against wear

#### **Improved Efficiency**

- FZG Efficiency Test demonstrates that TRAXON XL Synthetic Blend provides better torque efficiency vs.
   GL-5 80W-90s (from 20°C to 45°C at Moderate Loads)
  - Better torque efficiency reduces friction and lubricant drag for smoother and more efficient operating performance which may lead to lower fuel consumption

#### FZG Rig Results of Test Oils Losses at 302 Nm Applied Load

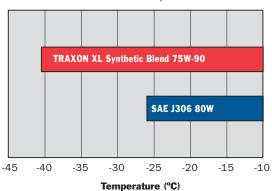


In the FZG Efficiency Testing, the lower the torque losses the better the efficiency of the gear. TRAXON XL Synthetic Blend 75W-90 is better than a GL-5 80W-90 oil under no loads, 135 Nm load, and 302 Nm load [ $20^{\circ}$ C ( $60^{\circ}$ F) to  $45^{\circ}$ C ( $113^{\circ}$ F)].

#### Low temperature protection

- Excellent temperature protection for cold weather conditions
  - · Easier start-ups and cold weather shifting
  - · Better gear protection at colder temperatures

TRAXON (Low Temperature Performance)
GL-5 (°C) @ 150,000 cP



TRAXON XL Synthetic Blend 75W-90 protects equipment better in colder temperatures than 80W grades.

#### **Industry & OEM Approvals**

TRAXON XL Synthetic Blend 75W-90 is approved against the SAE J2360 Global Standard (formerly MIL-PRF-2105E). This means customers around the world can be assured of a measurable and recognized quality of performance for their lubricants.

TRAXON XL Synthetic Blend 75W-90 meets API Gear Lubricant Service GL-5 and API MT-1 Gear Lubricant standard for heavy duty manual transmissions.

TRAXON XL Synthetic Blend 75W-90 is approved by Mack where a GO-J gear oil is specified. It is listed by ZF as TE-ML lubricant class 17B approved (ZF000290) and Scania STO 1:0 approved for axles and manual transmissions.

#### **Applications**

Petro-Canada TRAXON XL Synthetic Blend is recommended for year-round use in many manual transmissions, differentials, power take off units and final drives found on passenger cars, trucks, and off-highway vehicles used in construction, farm, forestry and mining operations. Consult owners manual for type and grade needed.

TRAXON XL Synthetic Blend is recommended for most oil lubricated universal joints, wheel bearings, planetary gear sets, steering gears and certain industrial gear reducers requiring GL-3, GL-4, or GL-5 oils.

Due to specific lubrication requirements TRAXON XL Synthetic Blend must not be used in:

- · Automatic Transmissions
- · Powershift Transmissions
- Hydrostatic drives and systems that include the lubrication of wet clutches and brakes
- Manual Transaxles on front wheel drive vehicles where an automatic transmission fluid or engine oil is specified
- Spicer Manual Transmissions where single grade engine oils are specified
- Not for use in specific manual transmissions where you must use an API GL-4 rated oil <u>only</u> and a GL-5/MT-1 oil is not acceptable

better in colder temperatures than 80W grades. \*Based on highway, normal operation which must be reduced for severe service, vocational and/or off-road type applications.

## **Typical Performance Data**

PROPERTY	TEST METHOD	TRAXON XL SYNTHETIC BLEND 75W-90
Density, kg/L, 15°C (60°F)	ASTM D4052	0.8765
Flash Point, COC, °C (°F)	ASTM D92	183 (361)
Kinematic Viscosity, cSt @ 40°C (SUS @ 100°F) cSt @ 100°C (SUS @ 210°F)	ASTM D445	108.6 (554) 16.54 (85)
Brookfield Viscosity, cP @ -40°C (-40°F)	ASTM D2983	118,000
*Temperature for 150,000 cP, °C (°F)	ASTM D2983	-41.0 (-41.8)
Viscosity Index	ASTM D2270	165
Pour Point, °C (°F)	ASTM D5950	-48 (-54)
Channel Point, °C (°F)	3GP-029.1b	-54 (-65)
Foaming Sequence 1 Sequence 2 Sequence 3	ASTM D892	0/0 5/0 0/0
Phosphorus, % wt	ASTM D4951	0.127
Sulphur, % wt	ASTM D4294	2.09

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

<sup>\*</sup> The figure of 150,000 cP maximum Brookfield viscosity is issued in MIL-PRF-2105E and SAE J2360 to define low temperature properties. This value was selected as the result of a series of tests in a specific rear axle design which showed that pinion bearing failure can occur at viscosities higher than 150,000 cP. This technique defines the minimum temperature at which each viscosity grade can be safely used.

#### **Health and Safety**

Petro-Canada TRAXON XL Synthetic Blend has no adverse effect on health provided it is used as directed. To obtain Material Health and Safety Data Sheets (MSDS), contact one of our TechData Info Lines.

#### **TechData Info Lines**

If you are an **existing customer** looking to place an order, please call a Customer Order Management Representative at:

Canada (English)	. Phone 1-800-268-5850
(French)	. Phone 1-800-576-1686
United States	. Phone 1-877-730-2369
Latin America / Furone / Asia	Phone +1-866-957-4444

You can also e-mail us at lubecsr@suncor.com

ISO 9001 ISO 14001 ISO/TS 16949

If you would like to **become a Petro-Canada lubricants customer** and require more information about specialty fluids, oils and greases that can help maximize your equipment performance, savings and productivity, please contact us at:

North America	Phone 1-866-335-3369
Europe	Phone +44 (0) 121-781-7264
Germany	Phone 0800-589-4751
China	Phone +86 (21) 6362-0066

Visit us on the web at lubricants.petro-canada.com

