



TURBONYCOIL 600

LAND BASED AERODERIVATIVE

GAS TURBINE FLUID

Introduction

Petro-Canada distributes TURBONYCOIL 600 which is a licensed and registered trademark of NYCO S.A. TURBONYCOIL 600 is **Rolls Royce approved** and specially designed to effectively lubricate land based aeroderivative gas turbines operating under extreme conditions.

TURBONYCOIL 600 is non-toxic, based on polyol esters with high thermal stability and fortified with anti-oxidant, anti-wear and anti-corrosion additives.

TURBONYCOIL 600 delivers exceptional oxidative and thermal stability. It has excellent resistance to foaming and superior lubricity. It also offers lower volatility at high temperatures and higher flash point than many competitive fluids.

Applications

TURBONYCOIL 600 is recommended for use in land based aeroderivative gas turbine engines which require a lubricant qualified against U.S. Military Specification MIL-PRF-23699G Standard (Non-Corrosion Inhibiting) Classification or a Rolls Royce approved lubricant. Such turbines may be found operating in the following applications:

- Mechanical drive applications in gas compressors and refrigeration compressors
- Power generation units on oil and gas drilling platforms and marine applications or in industrial operations and manufacturing plants
- Cogeneration service in large industrial operations as well as smaller units in universities, hotels, hospitals, sports complexes, apartment complexes, government offices and shopping centres
- Peak power generation systems

TURBONYCOIL 600 is approved by the following engine manufacturers for use in land based industrial and marine gas turbine applications where a MIL-PRF-23699G Standard Classification or Rolls Royce approved lubricant is required: Rolls Royce/Allison, CFM International, Turbomeca, Pratt & Whitney Canada, Hamilton/Sundstrand/APIIC, Motor Sich and General Electric.

- Meets the following specifications:
 - Joint Service OX-27/OX-28
 - NATO Code O-156
 - DEF STAN 91-101 Iss.3, Amd. 1
 - MIL - PRF-23699G Class STD
 - SAE AS5780 Class SPC

Features and Benefits

- **Unique base stock to reduce operation and maintenance costs and provide improved engine performance for customers**
 - Exceptional resistance to fluid breakdown caused by air and high temperatures
 - Reduces coking
 - Minimizes buildup of sludge and varnish
 - High Flash and Fire Points allow for safe operation
- **Excellent additive technology to provide reliable service performance**
 - TURBONYCOIL 600 contains a proprietary anti-wear additive to increase the performance of the turbine and keep wear to a minimum
 - TURBONYCOIL 600 is non-toxic, unlike many competitor products containing toxic and harmful conventional anti-wear additives
 - Does not contain additives with Tri-Cresyl Phosphate (TCP) which exhibits recognized neurotoxin properties

- **Effective lubrication over a wide temperature range**
 - Faster cold starts and superior cold temperature lubrication protection
 - Exceptional viscosity stability at high temperatures

Operational Considerations

TURBONYCOIL 600 should not be mixed with mineral oil products. TURBONYCOIL 600 should only be used in land based aeroderivative gas turbines.

Typical Performance Data

PROPERTY	TEST METHOD	MIL-PRF-23699G SPECIFICATION	TURBONYCOIL 600
Viscosity, cSt @ 40°C / 100°F cSt @ 100°C / 210°F cSt @ -40°C / -40°F	ASTM D455 ASTM D2532	23 min 4.90 - 5.40 13,000 max	25.6 5.12 9,468
Viscosity Stability, 72 h @ -40°C / -40°F, % Change	FTM-S-791-3458	+/- 6 max	-0.7
Flash Point, °C / °F (COC)	ASTM D92	246 / 475 min	270 / 518
Pour Point, °C / °F	ASTM D97	-54 / -65 max	-57 / -71
Acid Number, mg KOH/g	SAE ARP 5088	1.0 max	0.16
Foaming Test, at 24°C / 75.2°F 5 minutes aeration/1 min setting at 94°C / 201.2°F 5 minutes aeration/1 min setting at 24°C / 75.2°F after 94°C / 201.2°F 5 minutes aeration/1 min setting	ASTM D892	25/0 max 25/0 max 25/0 max	10/0 5/0 10/0
Thermal Stability - Corrosivity, 96 h @ 274°C / 525°F Viscosity Change @ 40°C / 104°F, % Acid No. Change, mg KOH/g Steel Weight Change, mg/cm ²	FTM-S-791-3411	+/- 5.0 max 6.0 max +/- 4.0 max	-0.3 0.8 -0.05
Evaporation Loss, %, 6 1/2 h @ 204°C / 400°F	ASTM D972	10.0 max	3.4

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

Health and Safety

To obtain Material 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/Europe/Asia Phone +1-866-957-4444

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



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 +49 (0) 201-726-2913
China Phone +86 (21) 6362-0066

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

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Beyond today's standards.

