NYCO
AERONAUTICS & DEFENCE

# TURBONYCOIL 601

TECHNICAL DATA SHEET

## SYNTHETIC AVIATION TURBINE OIL

NATO CODE O-152 - MIL-PRF-23699 G CLASS CI

## DESCRIPTION

Turbonycoil 601 is a lubricating oil with a viscosity of 5 cSt at 100°C. It is based on neopentyl polyol esters with high thermal stability, fortified with carefully selected anti-oxidant, anti-wear and anti-corrosion additives.

## APPLICATIONS

- Turbine of military and commercial aircrafts and helicopters requiring rust and corrosion protection due to exposure to salt-laden air and ambient tropical environments
- Ground gas turbines (aero-derivative) used for power generation, gas pipelines and off-shore platforms requiring rust and corrosion exposure to salt-laden air and ambient tropical environments

| CHARACTERISTIC | UNIT | TYPICAL RESULT | MIL-PRF-23699 LIMIT | TEST METHOD |
|---|---|---|---|---|
| **Kinematic viscosity**<br>**at 100°C**<br>**at 40°C**<br>**at - 40°C** | $mm^2/s$ | <br>5.05<br>26.0<br>11400 | <br>4.90 - 5.40<br>min. 23.0<br>max. 13000 | ASTM D445 |
| **Density at 20°C** | $kg/dm^3$ | 0.997 | report | ASTM D4052 |
| **Evaporation loss, 6 h 30 at 204°C** | %w | 4.0 | max. 10.0 | ASTM D972 |
| **Flash point, COC** | °C | 262 | min. 246 | ASTM D92 |
| **Pour point** | °C | - 57 | max. - 54 | ASTM D97 |
| **Acid number** | mg KOH/g | 0.6 | max. 1.00 | SAE ARP 5088 |
| **Rubber swell after 72 hrs**<br>**AMS 3217/1 at 70°C**<br>**AMS 3217/4 at 204°C** | %v | <br>17.8<br>17.0 | <br>5 to 25<br>5 to 25 | FTM-S-791-3604 |
| **Foaming test (tendency/stability)**<br>**at 24°C**<br>**at 94°C**<br>**at 24°C after 94°C** | $cm^3/min$ | <br>5/0<br>10/0<br>5/0 | <br>max. 25/0<br>max. 25/0<br>max. 25/0 | ASTM D892 |
| **Thermal stability and corrosivity, 96 h at 274°C**<br>**Viscosity change at 40°C**<br>**Acid number change**<br>**Steel weight change** | <br>%<br>mg KOH/g<br>$mg/cm^2$ | <br>1.0<br>1.6<br>0 | <br>max. +/- 5.0<br>max. 6.00<br>max. +/- 4.00 | FTM-S-791-3411 |
| **Corrosion and oxidative stability, 72 h at 204°C**<br>**Acid number change**<br>**Viscosity change at 40°C**<br>**Steel weight change**<br>**Silver weight change**<br>**Aluminium weight change**<br>**Magnesium weight change**<br>**Copper weight change** | <br>mg KOH/g<br>%<br>$mg/cm^2$<br>$mg/cm^2$<br>$mg/cm^2$<br>$mg/cm^2$<br>$mg/cm^2$ | <br>0.8<br>+ 17.0<br>< 0.02<br>< 0.02<br>< 0.02<br>< 0.02<br>< 0.02 | <br>max. 3.00<br>- 5.0 to + 25.0<br>max. +/- 0.2<br>max. +/- 0.2<br>max. +/- 0.2<br>max. +/- 0.2<br>max. +/- 0.4 | FTM-S-791-5308 |

*The values above are typical values. They do not constitute any contractual commitment.*
*Sales specifications are available on request. The present technical data sheet replaces all the previous editions.*



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