



## SYNTHETIC AVIATION TURBINE OIL

NATO CODE O-152

### 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

### SPECIFICATIONS \* / OEM's & Airframers reference

- Meets MIL-PRF-23699 G Class C/I
- Listed in Airbus Helicopters CM128

\* **Meets:** The product complies with all the requirements of the specification and has not been formally approved or approval is in progress or the specification is obsolete.

| 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 <sup>2</sup> /s   | 5.05<br>26.0<br>11400 | 4.90 - 5.40<br>min. 23.0<br>max. 13000 | ASTM D445      |
| Density at 20°C                                                               | kg/dm <sup>3</sup>   | 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                   | 17.8<br>17.0          | 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 <sup>3</sup> /min | 5/0<br>10/0<br>5/0    | max. 25/0<br>max. 25/0<br>max. 25/0    | ASTM D892      |
| Thermal Stability and Corrosivity, 96 h at 274°C                              | %                    | 1.0                   | max. +/- 5.0                           | FTM-S-791-3411 |
| Viscosity Change at 40°C                                                      | mg KOH/g             | 1.6                   | max. 6.00                              |                |
| Acid Number Change                                                            | mg/cm <sup>2</sup>   | 0                     | max. +/- 4.00                          |                |
| Steel Weight Change                                                           |                      |                       |                                        |                |
| Corrosion and Oxidative Stability, 72 h at 204°C                              |                      |                       |                                        |                |
| Acid Number Change                                                            | mg KOH/g             | 0.8                   | max. 3.00                              | FTM-S-791-5308 |
| Viscosity Change at 40°C                                                      | %                    | + 17.0                | - 5.0 to + 25.0                        |                |
| Steel Weight Change                                                           | mg/cm <sup>2</sup>   | < 0.02                | max. +/- 0.2                           |                |
| Silver Weight Change                                                          | mg/cm <sup>2</sup>   | < 0.02                | max. +/- 0.2                           |                |
| Aluminium Weight Change                                                       | mg/cm <sup>2</sup>   | < 0.02                | max. +/- 0.2                           |                |
| Magnesium Weight Change                                                       | mg/cm <sup>2</sup>   | < 0.02                | max. +/- 0.2                           |                |
| Copper Weight Change                                                          | mg/cm <sup>2</sup>   | < 0.02                | max. +/- 0.4                           |                |

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.