



# BP Turbo Oil 2380

## Description

- BP Turbo Oil 2380 is a 5 cSt synthetic lubricant that is approved against US military specification MIL-PRF-23699F STD, and UK military specification DEF STAN 91-101/2 (replaced DERD 2499).
- This lubricant provides a balanced combination of thermal and oxidation stability, load carrying capacity, lower volatility and has the best low temperature flow characteristics of all 5 cSt turbine oils.

## Applications & Approvals

- BP Turbo Oil 2380 is recommended for the lubrication of most aircraft gas turbines and accessories. It is also recommended for the lubrication of aero-derived gas turbines in industrial power generation, offshore and marine applications.
- BP Turbo Oil 2380 has been approved by a wide range of engine and accessory manufacturers for their applicable equipment, including:

Rolls-Royce Ltd, Rolls-Royce Allison, GE, Pratt & Whitney, Pratt & Whitney Canada, Honeywell, Hamilton Sundstrand, CFMI, IAE, MTU, Solar and Turbomeca.

Please contact our local representatives shown in the Air BP website for approval details.

## Features & Benefits

- Viscosity:** BP Turbo Oil 2380 has the best low temperature viscosity properties among all 5 cSt oils.
- Cleanliness:** Minimum formation of varnish and sludge deposits over long periods of use.
- Seal Material Compatibility:** Very benign to commonly used seal materials in gas turbines.
- Load Carrying Capacity:** BP Turbo Oil 2380 is among the best of its class and provides excellent protection to bearings, gears, and other highly loaded lubricated surfaces.
- Bulk Stability:** Its high degree of oxidation resistance permits a long period of operation without significant increase in viscosity and/or total acidity.

## Storage & Shelf Life

- The shelf life of BP Turbo Oil 2380 can extend beyond four years when stored in original, unopened quart cans under recommended storage conditions, i.e. in a well ventilated and covered area away from extreme heat and moisture etc. 55-gallon drums and 5-gallon pails have an expected shelf life of three years minimum.
- For all package styles, shelf life can be increased significantly beyond those stated above, depending upon storage conditions.

Please contact your Air BP representative if you have any questions about product usability.



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## Typical Properties

BP Turbo Oil 2380	Test Method	Result
Density @ 15°C, Kg/l	ASTM D1298	0.9749
Kinematic Viscosity, cSt, mm <sup>2</sup> /sec		
@ 100°C	ASTM D445	4.97
@ 40°C	ASTM D445	24.2
@ -40°C	ASTM D-2532	7950
Pour Point, °C	ASTM D97	-57
Flash Point, °C	ASTM D92	265
Total Acid N <sup>o</sup> , mgKOH/g	SAE-ARP5088	0.43
Evaporative Loss, % (6.5h, 204°C)	ASTM D972	3.0
Foaming Characteristics	ASTM D892	
Sequence 1 @ 24°C		9/0
Sequence 2 @ 93°C		8/0
Sequence 3 @ 24°C		8/0
Load Carrying Ability, IAE Gear Machine, % Ref Oil A	IP166	
2000rpm		99
6000rpm		86
Rubber Swell, %	DERD Test, Method 4	
Nitrile Rubber, 192h @ 130°C		10.5
Viton Rubber, 192h @ 200°C		22.5
Silicone Rubber, 192h @ 175°C		10.5
Viton LCS Rubber, 192h @ 200°C		14

Health, safety and environmental information are provided for this product in the Materials Safety Data Sheet. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products. Before using the product other than directed, please contact Air BP for consultation.

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