

# LUKOIL TORNADO SNH

High-quality oil for turbochargers in chemical industry

## APPROVALS

**DRESSER-RAND** Spec 003-406-001

**JSC «GIAP»**

**Group HMS**

**JSC «Volgogradneftemash»**

**JSC «DAENERGOMASH»** (ISO VG 32)

## PRODUCT DESCRIPTION

**LUKOIL TORNADO SNH** is a series of high-quality oils produced on base stocks manufactured according synthetic technology with involvement of high performance additive package.

## APPLICATION

**LUKOIL TORNADO SNH** is intended for lubrication of circulation systems of turbo-driven centrifugal compressors of chemical and petrochemical plants. The oil is suitable for lubrication of turbine bearing units and auxiliary units (turbo-compressors, steam and gas turbines, hydroturbines).

## BENEFITS

- Specially designed for compressors at chemical production, including where interaction with ammonia takes place
- High viscosity index
- Improved air release and water separation
- Superior oxidation stability
- Continuous and reliable equipment operation
- High resistance to corrosion and foam formation
- Excellent thermal oxidation stability
- High demulsifying ability
- Extended oil service life in comparison with conventional oils due to low Sulphur content and high oxidation stability

The product name in an order:

Turbine oil LUKOIL TORNADO SNH 32, STO 79345251-087-2016

Turbine oil LUKOIL TORNADO SNH 46, STO 79345251-087-2016

## TYPICAL TEST DATA

| PROPERTY   | Test method                           | LUKOIL TORNADO SNH |      |
|--|---------------------------------------|--------------------|------|
|  |                                       | 32                 | 46   |
| ISO Viscosity Grade  |                                       | 32                 | 46   |
| Kinematic Viscosity at 40 °C, mm <sup>2</sup> /s   | GOST 33 / ASTM D445                   | 32                 | 44   |
| Kinematic Viscosity at 100 °C, mm <sup>2</sup> /s  | GOST 33 / ASTM D445                   | 6.0                | 7.2  |
| Viscosity index  | GOST 25371 / ASTM D2270               | 129                | 117  |
| Flash Point, COC, °C   | GOST 4333 / ASTM D92                  | 220                | 230  |
| Pour Point, °C   | GOST 20287 B                          | -37                | -32  |
| Copper corrosion effect (3 hours at 100 °C), points  | GOST 2917/ ASTM D130 / ISO 2160       | 1b                 | 1b   |
| Sulphur content, %   | ASTM D6481 / GOST 1437 / GOST R 51947 | 0.11               | 0.14 |
| Air release at 50 °C, min  | ASTM D3427 / ISO 9120                 | 2.9                | 3.8  |
| Oxidation Stability of Steam Turbine Oils by Rotating Pressure Vessel (RPVOT) at 150 °C, min | ASTM D 2272                           | 748                | 672  |
| Foaming/foam stability:  |                                       |                    |      |
| -at 24°C, ml   | ASTM D892                             | 20/0               | 20/0 |
| -at 94°C, ml   |                                       | 10/0               | 10/0 |
| -at 24°C after 94°C, ml  |                                       | 30/0               | 20/0 |
| Water Separation: time of 3 ml emulsion breaking at 54 °C (40-37-3), min                     | ASTM D1401 / ISO 6614                 | 20                 | 20   |

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved by OOO "LLK-International".