



TECHNICAL DATA SHEET (TDS) — Spindle Oil

Product Name: Basekim Spindle Oil
Supplier: Basekim Chemical Production Co.

Product Description

A low-viscosity, high-performance lubricant designed specifically for high-speed spindles and precision bearings. Provides minimal drag, excellent cooling, oxidation resistance, clean operation (low residue), rust prevention, and superior film strength under demanding rotational conditions.

Applications

- CNC spindles, high-speed turning, milling machines
- Grinding machines where precision finish is critical
- Textile machinery spindles
- Measuring and inspection equipment with moving bearings
- High rotational speed lathes

Key Performance Benefits

Benefit	Operational Impact
Low viscosity	Reduces friction; allows high RPM without heat buildup
Good thermal stability	Minimizes thermal expansion; maintains precision
Oxidation / sludge resistance	Extends oil service life; keeps components clean
Anti-rust / corrosion protection	Prolongs bearing & spindle life; prevents downtime
Smooth lubricating film	Maintains smooth rotation; reduces vibration / wear

Typical Physical & Performance Specifications

Property	Typical Value / Range*
Density @ 15 °C	~0.85-0.88 g/cm ³
Kinematic Viscosity @ 40 °C	~10-30 cSt (depending on grade)
Viscosity @ 100 °C	~2-6 cSt (depending on grade)
Viscosity Index	~100-110 or higher (if formulated)
Flash Point (Closed Cup)	≥ ~150-200 °C



Property	Typical Value / Range*
Pour Point	Approximately -15 to 0 °C (depending on grade)
Rust Prevention	Passes standard rust tests (e.g. ASTM D665)
Oxidation Stability (TAN increase)	Low, under standard ASTM oxidation tests

* All values are typical. For exact values, check the Certificate of Analysis (COA) supplied with each batch.

Packaging

- 20L cans (small / workshop scale)
- 200L steel drums (industrial scale)
- Bulk: IBC tanks or flexitanks

Storage & Handling Recommendations

- Store between ~5-40 °C, protected from freezing and direct sunlight.
- Keep containers tightly closed to prevent contamination and oxidation.
- Avoid extended exposure to air / humidity.
- Use clean dispensing systems to avoid introduction of particulates or water.

Maintenance & Oil Change / Replacement Guidelines

- Monitor oil condition periodically (look for darkening, increase in TAN, viscosity drift, presence of particulates).
- Replace when performance degrades (e.g. increase in friction, noise, vibration, temperature).
- Dispose of used oil per environmental & local regulations.

Safety & Usage Notes

- Keep away from incompatible materials (strong oxidants, certain sealants).
- Ensure good ventilation if oil mist / spray is generated.
- Use in accordance with equipment manufacturer lubrication guidelines.