ThermaSil PAO™ 27

Synthetic Non-melt Grease

Excellent Thermal & Chemical Resistance

The PAO base oil provides superior resistance to oxidation, minimizing sludge formation and viscosity breakdown under prolonged exposure to heat.

ThermaSil PAO 27™ exhibits excellent resistance to acids, alkalis, solvents, and industrial chemicals, making it suitable for chemically aggressive environments.

Outstanding Water Resistance

The non-soap structure resists water washout, ensuring lubrication continuity in wet, humid, or wash-down conditions.

Long Service Life

Reduced oil separation and thermal degradation translate into longer re-lubrication intervals and lower maintenance costs.

Built for Chemically Aggressive Environments.

- Ammonia vapors
- Urea dust
- Phosphates
- Acids and alkalis
- Corrosive fumes + moisture

Non-Melting Protection for Extreme Heat

MicroLub ThermaSil PAO 27™ is a premium, non-melting, high-temperature grease engineered for applications where conventional soap-thickened greases fail due to extreme heat, chemical exposure, or water washout.

Formulated with a **synthetic PAO (Polyalphaolefin) base oil and a synthetic amorphous silica thickener**, ThermaSil PAO 27™ delivers exceptional thermal stability, chemical inertness, and long service life in harsh industrial environments.

Non-Melting High-Temperature Stability

Unlike conventional soap-based greases, MicroLub ThermaSil PAO 27™ has no dropping point. The silica-thickened structure remains stable at high temperatures, preventing oil bleed, grease run-off, or carbonization in hot operating zones.
The grease maintains its structure without melting or dripping, ensuring consistent lubrication in elevated-temperature zones such as **aluminium smelters**, cement plants, asphalt facilities, **steel mills**, and chemical processing operations.

Applications.

MicroLub ThermaSil PAO 27™ is recommended for high-temperature, low-to-moderate load applications, including:

- **Aluminium smelters:** valve mechanisms, slides, guides, linkages, auxiliary furnace components
- **Cement plants:** kiln doors, hot conveyors, dampers, slides
- **Asphalt plants:** pavers, dryer components, hot conveyors
- **Steel mills and foundries:** furnace doors, hot rollers, guides
- **Chemical processing plants:** valves, actuators, linkages
- **Refineries and LNG Operations:** Valve stems, actuators, and Damper mechanisms.

Performance Advantages

Applications Not Recommended

ThermaSil PAO™ is not designed as a heavy EP or shock-load grease and should not be used in:

- High-load bearings
- Potline drive systems
- Open gears and large gear drives
- Cranes, ladles, and molten metal handling equipment

For these applications, heavy EP greases such as **MicroLub Endura 78 are recommended.**

VOLATIZATION OVER 72 HOURS

72 hours @ 200°C.....1%
72 hours @ 250°C 4%
72 hours @ 300°C 12%
72 hours @ 350°C 28%
72 hours @ 400°C 70%

MicroLub ThermaSil PAO™ provides superior rust and corrosion protection in harsh industrial environments through a combination of water-resistant structure, chemically inert thickener, and corrosion-inhibiting additives.

Typical Properties

Property	Test Method	NLGI # 1	NLGI # 2
Appearance	Visual	Blue	Blue
Worked Penetration (60 Strokes)	ASTM D217	265–285	310–340
Dropping Point (°C)	ASTM D2265	None	None
Melting Point		None	
Base Oil Viscosity @ 40°C (cSt)	ASTM D445	1250	1250
Timken OK Load(kg)	ASTM D2509	22	22
Copper Strip Test	(163°C for 3 hours)	Negative	
Water Washout @ 80°C (%)	ASTM D1264	<1	<1
Rust Prevention	ASTM D1743	Pass	Pass
Temperature Range	(°C)	-30 to 200	-30 to 200

Application & Handling

- Due to its highly adhesive and thixotropic structure, MicroLub ThermaSil PAO™ should be applied with care. Over-lubrication should be avoided, particularly in bearing and sliding applications.
- Apply a thin, even layer to clean, dry components. During service, periodically inspect the lubricated area to establish the appropriate re-lubrication interval based on operating conditions.
- Proper application ensures optimal performance, longer service life, and reduced lubricant consumption.

Available in : 400g Cartridges , 3.5kg Tubs, 18kg Pails