

# KLONDIKE nano Full Synthetic EP-1.5 Grease



## PRODUCT DESCRIPTION

KLONDIKE nano Full Synthetic EP-1.5 Grease represents the pinnacle of modern lubricant design. Innovative nanotechnology enhances the performance of this lubricant into an area previously unseen in the field of industrial grease products.

## APPLICATIONS

KLONDIKE nano Full Synthetic EP-1.5 Grease is formulated for use in the most technical and demanding industrial, automotive, and heavy duty equipment applications. This highly advanced formulation has proven to outperform traditional and new technology grease types due to its incorporation of premium PAO full synthetic base oil and proprietary nanotechnology. This fully formulated and ready to use lubricating grease provides superior performance under extreme EP conditions especially in the presence of high operating speeds, extreme temperatures, and pressures.

Typical applications for KLONDIKE nano Full Synthetic EP-1.5 Grease include (but are not limited to):

- Heavily loaded plain and anti-friction bearings and couplings subject to shock loading and exposed to wide ambient temperature range.
- High speed, high pressure, high temperature industrial applications where long service life and maximum protection is desired.
- Severely loaded pins and bushings on heavy equipment.
- Industrial and mobile equipment used in steel mills, paper mills, raw materials handling, or mining operations.
- Automotive and heavy truck wheel bearings and chassis points.



## FEATURES AND BENEFITS

KLONDIKE nano Full Synthetic EP-1.5 Grease brings a unique, technically advanced grease offering to the industrial and heavy equipment market. Proprietary nanotechnology is presented into a commercial lubricant in the form of multi-layered, spherical, closed caged particles of tungsten disulfide. The unique spherical tungsten disulfide nanoparticles show outstanding resistance to extreme temperatures (-270°C to 450°C), heavy shock loading (5,076,000 PSI) and extreme pressure (4,263,000 PSI). This versatile formulation can operate in even the most extreme operating conditions, including high and ultra-low temperatures, high pressure and high vacuum, high load, high rotating speed, high radiation and in corrosive environments.

As metal parts lubricated with KLONDIKE nano grease move against each other, the layers of tungsten disulfide particles exfoliate, laying down a protective layer and bonding to the metal parts in the areas of most extreme pressure. These features ensure maximum EP protection, extremely low wear rate, friction reduction, and reduced energy consumption.

The incorporation of this proprietary technology into a very stable, PAO synthetic base fluid produces a grease offering extreme temperature performance, and maximum resistance to oxidation, metal wear, and equipment and component downtime.

KLONDIKE nano Full Synthetic EP-1.5 Grease delivers value through the following features:

-  **Full synthetic base oil components** – outstanding stability and mobility across an extremely wide temperature range. All season protection and performance.
-  **Fills in asperities and micro cracks** – nanotechnology provides surface conditioning for maximum anti-wear protection.
-  **Exfoliates layers under heavy load** – nanoparticles lay down protective layers under extreme load conditions providing outstanding metal surface weld load protection.
-  **Spheroidal nano molecules act as ball bearings** – moving surfaces glide past each other with minimum friction and heat for optimized efficiency and low heat generation.
-  **Hollow spherical structure** – nanoparticles cushion heavy shock load for maximum component protection and long life.
-  **Unique technical characteristics** – advanced lithium complex formulation with unique components ensures high performance and maximum compatibility.



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The benefits of this technological advancement in grease formulation can be summarized as follows:

- **Reduction in component wear** – lubricated components have greatly reduced wear rate.
- **Extended machinery life** – lubricated components last longer in service for maximum service life.
- **Extended maintenance intervals** – lubricated components last up to twice as long using the same amount of lubricant.
- **Reduction in equipment downtime** – less required scheduled or unscheduled maintenance increases hours of productivity and reduces overall cost of ownership.
- **Improvement in equipment output** – less friction between moving parts improves usable horsepower and torque.
- **Reduction in energy consumption** – less friction between moving parts allows machinery to operate at peak efficiency.

## TYPICAL TECHNICAL PROPERTIES

PROPERTY	TEST METHOD	nano FULL SYNTHETIC NLGI 1.5 EP GREASE
NLGI grade	ASTM D217	1.5
4-Ball Wear (mm)	ASTM D2266	0.33
4-Ball Weld Load (kg)	ASTM D2596	800 kg (>8000N)
Coefficient of Friction	ASTM D2266	0.0478
Timken EP (lbs)	ASTM D2509	80
Cone Penetration	ASTM D217	300
Dropping Point (°F/°C)	ASTM D2265	500 / 260 minimum
Copper Corrosion	ASTM D130	1b
Rust Test	ASTM D1743	Pass
Specific Gravity		0.96
Appearance	Visual	Smooth, tacky
Color	Visual	Blue

All stated physical properties are typical of standard production and may vary.



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## HEALTH AND SAFETY

This product is not expected to have adverse health implications when used for its intended application. For detailed information on safe handling of this product, refer to its Material Safety Data Sheet (MSDS). To obtain an MSDS on this or any other KLONDIKE product, please visit [www.klondikelubricants.com](http://www.klondikelubricants.com) or call 1-877-293-4691. When disposing of used product, be responsible to the environment.

## DISCLAIMER

KLONDIKE takes no responsibility for product misuse or misapplication.

## PRODUCT NUMBERS

NANO EP-1.5 FULL SYNTHETIC	Tube: 397 G / 14 OZ	nKL-GR1630
	Pail: 15.9 KG / 35 LB	nKL-GR1680
	Keg: 54.5 KG / 120 LB	nKL-GR1685

## BRAVING THE FORCE OF MOVEMENT

KLONDIKE stands for robust, reliable, high quality products tailored to suit the requirements of the on- and off-road heavy duty, automotive and industrial markets. Our solutions span from trend-setting retail lubricants through small-batch custom formulations to large bulk orders ready for immediate delivery.

The extensive KLONDIKE product range includes premium oils, lubricants, greases, chemicals and specialty fluids formulated with virgin base oils and protective inhibitors. Designed to handle the most extreme climates and operating conditions, the KLONDIKE products protect and extend the life of your equipment, optimize performance and improve productivity while meeting and exceeding industry standards and specifications.

### KLONDIKE Lubricants Corporation

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