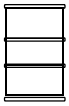
SINOPEC
PERFORMANCE IN MOTION

Product Data Sheet

Product	**Sinopec Golden Grease NLGI 2**
Summary	**Product description** Sinopec Golden Grease NLGI 2 is a multi-purpose grease formulated using advanced nanotechnology, NanoShield. It is prepared through the saponification of high- activity nano-precursors and selected fatty acid that forms compact and stable metal soap fibers in high quality mineral base oil. Sinopec Golden Grease NLGI 2 provides excellent anti-wear protection, superior lubricity, as well as outstanding mechanical stability, water resistance, adhesion, sealing and rust resistance.

Available sizes

PAIL – 15kg



DRUM – 180kg

Appearance

Applications

Sinopec Golden Grease is suitable for:

- The lubrication and the protection of low speed equipment such as construction machinery, agricultural machinery, ceramics (such as polishing machines, transmission bearings), metallurgy (such as conveying roller table), automobile (chassis, wheel hub) and conventional general machinery, etc.
- Application where the temperature range is from -20℃ to 110℃.

Features and benefits

- Excellent lubricity to reduce abrasion between friction pairs.
- Excellent resistance to water washout, improved lubricity even under conditions such as high ambient humidity and inevitable contamination with water.
- Outstanding oxidation stability to ensure longer service life during application process.
- Outstanding mechanical stability under harsh shearing forces.
- Superior rust resistance capability to prevent wear of the friction pairs during the operation.
- Good adhesiveness within the applicable temperature range.

Typical data

Item		NLGI 2
Appearance	Visual	Smooth light yellow to brown
Worked Penetration (25 ℃), 0.1mm	ASTM D 217	275
Difference between Worked and Prolonged Penetration, 0.1mm	ASTM D 217	22
Difference between Worked and Prolonged Penetration (10% water added), 0.1mm	ASTM D 217	30
Oil Separation (100 ℃, 24hrs) %(m/m)	ASTM D 6184	1.2
Apparent Viscosity (-15℃, $10s^{-1}$) Pa·s	GOST 7163	385
Dropping Point, ℃	ASTM D 2265	152
Corrosion (T_2 copper, 100 ℃, 24hrs)	ASTM D 4048	Pass
Water Washout (38℃, 1h) %（m/m）	ASTM D1264	0.1
Corrosion Resistance (52℃, 48h)	ASTM D 1743	Pass
Four Ball Wear（392N,60min）, mm	ASTM D 2266	0.62
Ultimate strength at 50°C, Pa (g/cm^2)	GOST 7143-73	206
Apparent Viscosity (0℃, $10s^{-1}$), gradient, Pa·s(p)	GOST 7163-84	200
Free alkalies content (base on NaOH), %	GOST 6707-76	0.12
Free organic acids content, %	GOST 6707-76	0
Water content, %	GOST 2477-65	0
Mechanical impurities insoluble in HCL, %	GOST 6479-73	0
Calcium soap content, %	GOST 5211-50	17.5

These data are given as an indication of typical values and not as exact specifications.

Accuracy of information

Data provided in this PDS is typical and subjected to change as a result of continuous product research and development. The information given was correct at the time of printing. The typical values given are subject to variations in the testing procedures and the manufacturing process may also result in slight variations. Sinopec guarantees that its lubricants meet any industry and OEM specifications referred to on this data sheet.

Sinopec cannot be held responsible for any deterioration in the product due to incorrect storage or handling. Information on the best practices is available from your local distributor.

Product and environmental safety

This product should not cause any health problems when used in the suggested applications and when the guidance provided in the Material Safety Data Sheet (MSDS) is followed. Please consult the MSDS for more detailed advice on handling; MSDSs are available from your local distributor. Do not use the product in applications other than those suggested.

As with all products, please take care to avoid environmental contamination when disposing of this product. Used oil should be sent for reclamation/recycling or, if not possible, must be disposed of according to relevant government/authority regulations.

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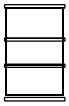
SINOPEC
PERFORMANCE IN MOTION

Product Data Sheet

Product	**Sinopec Golden Grease NLGI 3**
Summary	**Product description** Sinopec Golden Grease NLGI 3 is a multi-purpose grease formulated using advanced nanotechnology, NanoShield. It is prepared through the saponification of high- activity nano-precursors and selected fatty acid that forms compact and stable metal soap fibers in high quality mineral base oil. Sinopec Golden Grease NLGI 3 provides excellent anti-wear protection, superior lubricity, as well as outstanding mechanical stability, water resistance, adhesion, sealing and rust resistance.

Available sizes

PAIL – 15kg



DRUM – 180kg

Appearance

Applications

Sinopec Golden Grease is suitable for:

- The lubrication and the protection of low speed equipment such as construction machinery, agricultural machinery, ceramics (such as polishing machines, transmission bearings), metallurgy (such as conveying roller table), automobile (chassis, wheel hub) and conventional general machinery, etc.
- Application where the temperature range is from -20℃ to 110℃.

Features and benefits

- Excellent lubricity to reduce abrasion between friction pairs.
- Excellent resistance to water washout, improved lubricity even under conditions such as high ambient humidity and inevitable contamination with water.
- Outstanding oxidation stability to ensure longer service life during application process.
- Outstanding mechanical stability under harsh shearing forces.
- Superior rust resistance capability to prevent wear of the friction pairs during the operation.
- Good adhesiveness within the applicable temperature range.

Typical data

Item		NLGI 3
Appearance	Visual	Smooth light yellow to brown
Worked Penetration (25 ℃), 0.1mm	ASTM D 217	235
Difference between Worked and Prolonged Penetration, 0.1mm	ASTM D 217	23
Difference between Worked and Prolonged Penetration (10% water added), 0.1mm	ASTM D 217	34
Oil Separation (100 ℃, 24hrs) %(m/m)	ASTM D 6184	1.1
Apparent Viscosity (-15℃, $10s^{-1}$) Pa·s	GOST 7163	497
Dropping Point, ℃	ASTM D 2265	155
Corrosion (T_2 copper, 100 ℃, 24hrs)	ASTM D 4048	Pass
Water Washout (38℃, 1h) %（m/m）	ASTM D1264	0
Corrosion Resistance (52℃, 48h)	ASTM D 1743	Pass
Four Ball Wear（392N,60min）, mm	ASTM D 2266	0.65
Ultimate strength at 80°C, Pa (g/cm^2)	GOST 7143-73	170
Colloidal stability, %	GOST 7142-74	4
Apparent Viscosity (0℃, $10s^{-1}$), gradient, Pa·s(p)	GOST 7163-84	397
Protective properties (50°C, 30h, Steel, grade 40)	GOST 9.054 - 75	Pass
Corrosion and ageing protection	GOST 9080-77	Pass
Free alkalies content (base on NaOH), %	GOST 6707-76	0.19
Free organic acids content, %	GOST 6707-76	0
Water content, %	GOST 2477-65	0
Mechanical impurities insoluble in HCL, %	GOST 6479-73	0

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As with all products, please take care to avoid environmental contamination when disposing of this product. Used oil should be sent for reclamation/recycling or, if not possible, must be disposed of according to relevant government/authority regulations.

The SINOPEC trademark is registered and protected.

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