PENRITE

GREASES

Experts in Greases Since 1926

Since 1926, Penrite has been manufacturing the highest quality engine oils and greases.

Like engine oils, greases protect against friction between moving parts. Again, as with engine oils, specific products, with the right chemical makeup are required for specific applications. Using the wrong product will lead to unnecessary wear and the possibility of serious damage.

Water resistance capabilities, high temperature tolerances and shear stability are just some of the qualities sought in greases. Penrite's grease range not only meets these qualities, but exceeds performance expectations by using the highest quality base products and formulations.

With decades of experience and accumulated knowledge, Penrite produces the highest quality, most extensive range of greases, covering every application.

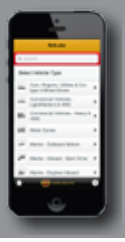
The range boasts over twenty different products, and features lithium, lithium complex, calcium, calcium complex, mixed complex and clay based greases.

Penrite has a high quality and diverse range with the right grease for the job. Whether it's automotive, marine, mining, agriculture or industrial applications, we have you covered. The application chart detailed on page three lists the right Penrite product for your application requirements.

To view the entire range of Penrite products visit penriteoil.com and view the lube guide for oil and coolant recommendations. Or simply call **AUS: 1300-PENRITE (1300 736 748)** or **NZ: 0800 533 698** to get the very best technical or sales advice 7 days a week or email **sales@penriteoil.com**

NETLUBE APP

RECOMMENDATION GUIDE FOR ANDROID & APPLE DEVICES



ANY *WHERE TIME APPLICATION*

HOW TO ACCESS THE NETLUBE APP

Using your iPhone, iPad or iPod visit the App Store then search for "Netlube Penrite Australia" or scan this QR Code.

GREASE TIP:

Ideal quantity of grease in a bearing is 2/3 of bearing's free capacity. The best way to grease a bearing is to: Dismantle, clean, grease and reassemble. Beware of over-filling bearings: This causes seals to fail, solid contaminants can accumulate and temperatures can increase.

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Proudly 100% Australian Owned and Made Since 1926

PENRITE

GREASE CHARACTERISTICS:

What is grease?

GREASE = BASE OIL + ADDITIVES + THICKENER

A lubricating grease is made by mixing 2% - 15% of a thickener and other additives into a lube base oil.

How does grease work?

The thickeners in grease absorb lubricants and additives like a sponge and release them when under pressure. The lubricants prevent friction and create a barrier or film between moving parts.

What is a grease expected to do?

- Reduce friction and wear
- Provide corrosion protection
- Seal bearings from water and contaminants
- Resist leakage, dripping and throw off
- Resist change in structure or consistency during service
- Maintain mobility under conditions of application
- Be compatible with seals
- Tolerate or repel moisture

What are the properties of grease?

- Amount and type of thickener
- Additives
- Solids (ie. Moly)
- Water washout and spray off
- Mechanical stability
- Oil separation
- Storage life
- Oxidation resistance
- Rust / corrosion resistance
- Viscosity of base oil
- Bearing life (wheels, electric motors)
- Compatibility (other greases, seals)
- Low temperature torque

What type of Thickeners are used?

- Clay (Organo Clay, ie. Bentone)
- Lithium
- Lithium Complex
- Lithium / Calcium Mixed Complex
- Calcium Complex
- Aluminium Complex
- Others (Calcium, Sodium, Polyurea)

What types of Base Oils are used?

- Castor Oils
- Mineral Oils (Min)
- Synthetic Oils (Syn) (Group 3 & 4, PAO & Ester)
- White Oils (Pharmaceutical Grade)
- Vegetable Oils (Food Grade)

GREASE ADDITIVES:

- Oxidation inhibitors
- Rust/Corrosion inhibitors
- Extreme Pressure Additives
- Anti Wear Additives
- Dyes, Pigments
- Tacky Additive - Adhesive/Cohesive (polymers/resins)
- Insoluble Solids (Moly, Graphite, Copper, Zinc Oxide)

GREASE TYPES:

There are many types of greases which are shown below. As can be seen they have different properties which helps to define where they are best suited.

THICKENER	DROP POINT,°C	MAX SERVICE CONTINUOUS OPERATING TEMP,°C	HIGH TEMP USE	STRUCTURE	SHEAR STABILITY	WATER RESISTANCE
Calcium	100	<80	Very Poor	Smooth	Fair	Good
Lithium	160 - 200	125	Good	Smooth	Good	Good
Calcium Complex	>260	150	Excellent	Buttery	Good	Excellent
Lithium Complex	>240	160	Excellent	Smooth	Excellent	Excellent
Aluminium Complex	>260	150	Excellent	Gel	Good	Excellent
Barium Complex	>200	150	Good	Fibrous	Fair	Excellent
Polyurea	>230	150	Excellent	Opaque	Good	Excellent
Bentone	NA	150	Excellent	Smooth	Fair	Good
Sodium	170 - 190	125	Good	Fibrous	Good	Poor

Very Poor Poor Fair Good Excellent

Buttery Smooth Fibrous Gel Opaque

GREASE SERVICE CLASSIFICATION:

There are different categories for Automotive Service Greases developed by the NLGI (National Lubricating Grease Institute). The classification (ASTM D 4950) covers greases designed for the lubrication of chassis components and wheel bearings of passenger cars, trucks and other vehicles.

Consistency – Is the degree of hardness of a grease and may vary considerably with temperature ie. from Fluid to Very Hard. The viscosity range of the base oil used in grease varies from ISO 32 (very thin) to 1500 (extremely thick).

NLGI Grade Penetration - NLGI is measured by a drop method. A special cone is dropped into the grease at 25° Centigrade and the depth of the fall is measured. The thickness of a grease is identified by an NLGI number that ranges from 000 to 6. NLGI 000 is pourable grease and NLGI 6 grease is solid.

This has been classified by the NLGI into the following categories:

NLGI GRADE PENETRATION @ 25°C (1/10th mm)		
000	445 - 475	Fluid
00	400 - 430	Semi-Fluid
0	355 - 385	Very Soft
1	310 - 340	Soft
2	265 - 295	Normal
3	220 - 250	Firm
4	175 - 205	Very Firm
5	130 - 160	Hard
6 (block grease)	85 – 115	Very Hard

GREASE TESTING:

Drop Point Test - The dropping point of grease is the temperature at which the thickener can no longer hold the base oil. Grease is placed in a small cup and heated in an oven-like device. When a drop of oil falls from the lower opening, the dropping point of the grease is calculated using the temperatures in the oven and inside the cup.

4 Ball Weld Test - A 12.7 mm steel ball is rotated against three stationary balls of the same description. Lubricant surrounds the balls. Test conditions are 1770 rpm, 25°C and 10 seconds duration. Testing steps continue with new balls and an increased load until welding of the four balls occurs.

GREASE COLOUR:

A grease's colour is determined by base oil, thickener, additive and dye. A grease can be made to almost any colour to suit a particular environment, application or for identification purposes.

GREASE SHELF LIFE:

The shelf life of any grease is affected by the type and amount of thickener used, consistency of the grease, manufacturing method employed and the formulation complexity. Generally, straight Lithium, Lithium Complex and Calcium Complex greases remain stable for a long time. Aluminium Complex greases tend to set and harden, but remain stable. Bentone and Barium greases tend to soften on aging. Based on these observations:

The shelf life of most Penrite greases is about 5 years. However, Steering Box Lubricant and Semi Fluid Grease only have a 2 year shelf life.

GREASE COMPATIBILITY:

Occasionally, grease substitution in an application may be necessary to correct problems arising from the original product in service. If the thickeners are incompatible, the mixture will not meet the properties of the individual greases and in some cases, the greases will fall apart. The below table provides a rough guide.

	Calcium	Lithium	Calcium Complex	Lithium Complex	Aluminium Complex	Barium Complex	Polyurea	Bentone	Sodium
Calcium		✔	✔	✔	●	✘	✔	✘	✘
Lithium	✔		✔	✔	●	●	✔	✘	●
Calcium Complex	✔	✔		●	✘	●	●	✘	✘
Lithium Complex	✔	✔	●		●	●	✔	✘	●
Aluminium Complex	✘	●	✘	●		✘	●	✘	✘
Barium Complex	✘	●	●	●	✘		●	✘	✘
Polyurea	✔	✔	●	✔	●	●		✘	✘
Bentone	✘	✘	✘	✘	✘	✘	✘		✘
Sodium	✘	●	✘	●	✘	✘	✘	✘	

✔ **Compatible** ✘ **Incompatible** ● **Borderline**

It is strongly advised that, in all cases, the old grease be purged or cleaned out from the system before a new one is introduced. However, compatibility between greases is temperature dependent. As the temperature rises, the problems associated with incompatibility also increase. With unknown competitors' products, it is strongly advised to treat them as incompatible.

Which grease do I use? Follow the **L.E.T.S PRINCIPLE:**

LOAD • **E**NVIRONMENT • **T**EMPERATURE • **S**PEED

LOAD

Load	ISO	NLGI	Additives/Base	Recommended Penrite Grease
High	220 460 680	1-2	High Base Oil Viscosity EP & AW Additives	Extreme Pressure Grease ACT Grease XEP2 High Temperature Wheel Bearing Grease
Low	100 150 220	2-3	Low Base Oil Viscosity Firm Consistency	Indgrease Lith R3 Indgrease 100 LXEP2

ENVIRONMENT

ENV	Protection Type	Additives/Base	Recommended Penrite Grease
Water	Rust Protection Water Resistance	Corrosion Preventative Adhesiveness Tackiness	Marine Grease Indgrease 1615 WR Indgrease CXOG-05
Acid / Alkali	Acid Protection Alkali Protection	Inert Thickener & Additives	Indgrease BM3
Long Dispensing Lines	Good Pumpability Soft Consistency		Indgrease Lith EP 0 Indgrease 100 LXEP2

TEMPERATURE

Temperature	Protection Type	Additives/Base	Recommended Penrite Grease
Very High	Up to 180°C	Clay Based Greases	Rubber Grease Copper Eze Indgrease BM3
High	Up to 170°C	Complex Greases	Indgrease 1615 WR Graphite Grease
Moderate	Up to 140°C	Lithium Greases	EP Grease Semi Fluid Grease Steering Box Lube Indgrease Lithium R3
Low	Down to -20°C	Lithium & Complex Greases	High Temperature Wheel Bearing Grease Marine Grease Molygrease EP 3% Indgrease 100 LXEP2 ACT Grease XEP2 QCA Grease MX9

SPEED

Speed	Load	ISO	NLGI	Additives/Base	Recommended Penrite Grease
High	Low	100 150	2-3	Low Base Oil Viscosity Firm Consistency	High Temperature Wheel Bearing Grease Water Pump Grease Indgrease 100 LXEP2
Low	High	220 460	2	High Base Oil Viscosity Soft Consistency	QCA Grease MX9

APPLICATION CHART

PENRITE — A Better Class of Oil

		Extreme Pressure Grease	Molygrease EP 3%	Semi Fluid Grease	Indgrease Lith EP 0	Indgrease Lith EP 2	Indgrease Lith R3	High Temperature Wheel Bearing Grease	Marine Grease	ACT Grease XEP2	Indgrease 100 LXEP2	Indgrease Moly HT	Graphite Grease	Water Pump Grease	Indgrease 1615 WR	Indgrease CX 152 WR	QCA Grease MX9	Indgrease CXOG-05	Copper Eze	Indgrease BM3	Cam Assembly Lube	Rubber Grease	CEPSA Arga Force
		LITHIUM						LITHIUM COMPLEX					CALCIUM		CALCIUM COMPLEX		MIXED COMPLEX		CLAY BASED		OTHER		
SPECIFICATIONS	NLGI Grade	2	2	00	0	2	3	2	2	2	2	1.5	3	4	1.5	2	2	0.5	1.5	3	Paste	2	00
	Colour	Red	Grey / Black	Light Brown	Light Brown	Amber	Amber	Purple	Green	Orange	Brown	Grey/ Black	Grey/ Black	Amber/ Yellow	Brown	Beige	Grey/ Black	Dark Brown	Copper	Grey/ Black	Grey	Red	Black
	Extreme Pressure	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes
	Solids and %	No	3	No	No	No	No	No	No	No	No	5	15	No	No	No	9	No	20	3	Yes	No	10
	"ISO" Base Oil Viscosity	320	220	150	150	180-210	100	220	220	560	100	460	100	NA	460	200	680	800	460	100	NA	320	"2400"
	Base Oil Type	Min	Min	Min	Min	Min	Min	Min	Min	Semi Syn	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Castor	Syn
	Drop Point, °C	190	190	170	195	195	195	275	275	>270	275	>260	80	90	>260	>280	>250	>260	Non Melt	Non Melt	NA	275	NA
	Recommended Operating Temperature Range, °C	Minus 20 to plus 130	Minus 20 to plus 130	Minus 20 to plus 130	Minus 20 to plus 130	Minus 20 to plus 130	Minus 20 to plus 130	Minus 10 to plus 170	Minus 15 to plus 170	Minus 20 to plus 140	Minus 20 to plus 160	0 to plus 160	Max 60	0 to plus 75	Minus 20 to plus 150	Minus 20 to plus 150	Minus 20 to plus 140	Minus 20 to plus 140	0 to plus 1093	Minus 20 to plus 200	NA	Minus 9 to plus 80	Minus 20 to plus 150
	Four Ball Weld Load, kg	400	315	250	250	250	NA	620	315	350	315	550	NA	NA	>660	>765	>800	765	NA	NA	NA	NA	>600
	Contains Tacky Additive	Yes	Yes	No	No	No	No	Yes	Yes	Yes	No	Yes	No	No	Yes	No	Yes	Yes	No	No	Yes	No	Yes
AUTOMOTIVE	Vintage Water Pumps													R									
	Wheel Bearings							R	R		S					R							
	Engine Assembly																				R		
	Chassis	R	R			S	S	R	S	S	S	R	S		S	R	S	S		S			S
	General Purpose	R	R			S		R	S	S	S					S							
	CV Joints		S									S					R						
	Petrol Resistant																					R	
	Tyre Mounting																					R	
	Universal Joints		R					S	S			R				S	R						
	Steering Boxes			S																			
TRUCK & BUS	Wheel Bearings							S	S	R						S							
	Chassis	S	R		S	S		S	S	S	S	R	S		S	R	S	S		S			S
	General Purpose	S	S			S		S	S	S	S				S	R							
	Trailer Couplings		R									R				R	R			R			
	Universal Joints									R		R				S	R						
	Fifth Wheel		S	S								S	S				S	R		S			S
	Truck Mounted Automated Greasing Systems				S																		
INDUSTRIAL	High Speed						S	R	R		R					R							
	Low Speed	S	S			S		S		S		R	S		R		R	R		S			S
	Electric Motors/Fans						R				R												
	High Temperature							R	R	R	R	R			R	R	R	R	R	R			
	High Load	S	R			R		S	S	R		R			R	R	R	R		S			S
	Central Systems	S		S	R	S					S	S						S					
	Long Life						S			R	R	S			R	R	R	S					
	Shock Loads	S	R			S		S	S	S	R	R			R	R	R	R		R			S
	Anti Seize																		R				
	Sliding Surfaces / Splines		R																				
	Wet Environments		R					S	R	S	S	S	S		R	R	S	S	S	R			R
AGRI	General Purpose	S	S			S		R		S	S	S			S	S		S					S
	Slasher Gearboxes			R																			
	Sugar Mills														S			S					S
	Vintage Water Pumps													R									
MINING & CONSTRUCTION	Wheel Bearings							S	S	R						S							
	King Pins/Shackles		S							S		R	S		S	S	R	S		R			S
	Gearboxes			S																			
	Open Gears																	R					R
	Anti Seize																		R				
	Wire Ropes														S	S		S					R
	Vibrating Conditions		S							R		R					R			S			
	High Temperatures							R	R	R	R	R			R	R	R	R		R			
	Wet Environments		S					R	R	R	R	R	S		R	R	R	R		R			R
	Central Systems			S	R						S												
MARINE	Boat Trailer Bearings							R	R		S					R							
	Deck Equipment		S			S		S	R	S	S	S	R		R	R	S						S
	Anti Seize																		R				
	Wire Ropes & Cables														S	S		S					R

S = SUITABLE • R = RECOMMENDED *May be used in this application only if a clay/bentone grease has been used prior.
Contact Penrite Lubricants Help Line for further details. Phone **1300 PENRITE (736 748)**

LITHIUM GREASES

Extreme Pressure Grease

Product Code	Pack Size	Carton Qty
EPGR00045	450 Grams	6
EPGR0005	500 Grams	6
EPGR0025	2.5 Kilograms	6
EPGR020	20 Kilograms	1
EPGR055	55 Kilograms	1
EPGR180	180 Kilograms	1

Colour: Red
Recommended Operating Temperature Range: -20°C to 130°C

Key Specifications: NLGI 2, ISO 6743, KP2K-30, DIN 51502

Penrite Extreme Pressure Grease is an NLGI 2, red coloured, general purpose grease manufactured from high quality base oils and uses a lithium soap base. It is suitable for use in all general grease applications in automotive and industrial service. This includes plain bearings, slow speed wheel and anti-friction bearings, chassis grease, general plant lubrication and agricultural and construction equipment lubrication.

Molygrease EP 3%

Product Code	Pack Size	Carton Qty
MOLY00045	450 Grams	6
MOLY0005	500 Grams	6
MOLY0025	2.5 Kilograms	6
MOLY020	20 Kilograms	1
MOLY055	55 Kilograms	1
MOLY180	180 Kilograms	1

Colour: Grey
Recommended Operating Temperature Range: -20°C to 130°C

Key Specifications: NLGI 2

Penrite Molygrease EP 3% is an all purpose, NLGI 2, high temperature grease. It features a lithium soap base with premium quality base oils and molybdenum disulphide (moly) for added protection. It is used for general grease applications in automotive and industrial service areas. Molygrease Ep 3% is particularly suitable for use where the grease is likely to be exposed to the weather and/or squeezed out. In these applications, a thin film of molybdenum will provide some measure of protection until the component can be re-greased.

Semi Fluid Grease

Product Code	Pack Size	Carton Qty
SEMI00045	450 Grams	12
SEMI0005	500 Millilitres (UK)	6
SEMI020	20 Kilograms	1

Colour: Light Brown
Recommended Operating Temperature Range: -20°C to 130°C

Penrite Semi Fluid Grease is an extreme pressure, NLGI 00, lithium soap thickened grease, blended using extreme pressure additives, anti-wear, rust and oxidation inhibitors. It is suitable for use in trailer bearing hubs where heavy oils are specified and leakage is a problem, chain cases, slow speed industrial gear boxes where AGMA 7EP (ISO 460 and above) or heavier oils are specified, leaky gear boxes, reduction gear boxes in slasher mowers, track rollers in earth moving equipment, centralised lubrication systems that require fluid (or "liquid") type greases, Burman motorcycle gear boxes.

Indgrease Lith EP 0

Product Code	Pack Size	Carton Qty
IGRLITHEP0020	20 Kilograms	1

Colour: Light Brown
Recommended Operating Temperature Range: -20°C to 130°C

Key Specifications: NLGI 0, DIN 51502: KP0K-20, ISO 6743: ISO-L-XCCFB

Penrite Indgrease Lith EP 0 is an NLGI 0, lithium based, mineral lubricating grease. It is made with a combination of antioxidants, corrosion inhibitors and Extreme Pressure (EP) and Anti Wear (AW) additives. It is a high quality multi-purpose, semi-fluid type grease for use in many types of automotive and industrial applications including heavy duty service where high loads are encountered. Indgrease Lith EP 0 is suitable for rolling element bearings, plain bearings, gears and couplings, where an NLGI 0 grease is required.

Indgrease Lith EP 2

Product Code	Pack Size	Carton Qty
IGRLITHEP200045	450 Grams	20
IGRLITHEP2020	20 Kilograms	1

Colour: Amber
Recommended Operating Temperature Range: -20°C to 130°C

Key Specifications: NLGI 2, DIN 51502: KP2K-20, ISO 6743: ISO-L-XBCEB 2

Penrite Indgrease Lith EP 2 is an NLGI 2, lithium based, industrial mineral lubricating grease. It is made with a combination of antioxidants, corrosion inhibitors and extreme pressure (EP) & anti-wear (AW) additives. Indgrease Lith EP 2 is high quality multi-purpose grease for use in many types of industrial applications where medium to high loads are encountered. Indgrease Lith EP 2 is suitable for use in general purpose bearing applications such as rolling element bearings and plain bearings, where an NLGI 2 grease is required.

Indgrease Lith R3

Product Code	Pack Size	Carton Qty
IGRLR300045	450 Grams	6

Colour: Amber
Recommended Operating Temperature Range: -20°C to 130°C

Key Specifications: NLGI 3, DIN 51502: KP3K-20, ISO 6743: ISO-L-XCCFA3

Penrite Indgrease Lith R3 is a high quality NLGI 3, lithium multi-purpose Rust & Oxidation (R&O) type grease. Designed as a multi-service grease for industrial applications, particularly high speed, low load bearing applications. It is suitable for rolling element bearings, plain bearings, gears and couplings. The applications range from electric motors, pumps, fans and generators. Has outstanding corrosion and water resistant properties and can be employed where water ingress is present.

LITHIUM COMPLEX GREASES

High Temperature Wheel Bearing Grease

Product Code	Pack Size	Carton Qty
HTGR00045	450 Grams	6
HTGR0005	500 Grams	6
HTGR0025	2.5 Kilograms	6
HTGR020	20 Kilograms	1
HTGR055	55 Kilograms	1
HTGR180	180 Kilograms	1

Colour: Purple
Recommended Operating Temperature Range: -10°C to 170°C

Key Specifications: NLGI 2, DIN 51502, ISO 6743, KP2N-30, ISO-L-XCDIB2, Volvo 97720 (level)

Penrite High Temperature Wheel Bearing Grease is an NLGI 2, purple coloured, high temperature all-purpose, extreme pressure (EP) grease manufactured from high quality base oils and a lithium complex soap. It utilises a special borate additive system for effective extreme pressure performance and anti-wear protection. It is suitable for use in all general chassis grease applications in automotive and industrial service, including in cars, 4WDs, trucks and buses.

Marine Grease

Product Code	Pack Size	Carton Qty
MARGR00045	450 Grams	6
MARGR0005	500 Grams	6
MARGR0025	2.5 Kilograms	6

Colour: Green
Recommended Operating Temperature Range: -15°C to 170°C

Key Specifications: NLGI 2, DIN 51502, ISO 6743

Penrite Marine Grease is an NLGI 2 green coloured, tacky, high temperature all-purpose grease manufactured from high quality mineral base oils and a lithium complex soap. It utilises a special anti-rust additive for enhanced protection in marine environments and tackiness additives to allow it to stay in place. It has been formulated for use in many marine grease applications. These include boat trailer wheel bearings and general on-board greasing points in leisure craft and fishing fleets including winch gears, bearing buddies, stern drives, prop shaft splines, steering tubes and cables. It is also suitable for use in wheel bearings of vehicles fitted with disc brakes.

ACT Grease XEP2

Product Code	Pack Size	Carton Qty
ACTXEP200045	450 Grams	6
ACTXEP2180	180 Kilograms	1

Colour: **Red/Orange**
Recommended Operating Temperature Range: **-20°C to 140°C**

Key Specifications: NLGI 2, ISO 6743, KP2K-20, DIN 51502

Penrite ACT Grease XEP2 is a tenacious, highly specialised semi-synthetic, NLGI 2, lithium complex grease designed for use in agricultural and construction equipment as well as on highway trucks. ACT Grease XEP2 can be used in various industrial, heavy duty automotive, agricultural, construction and mining applications, where it provides outstanding protection for low to medium speed bearings that are heavily loaded and where molybdenum greases are not required.

Indgrease 100 LXEP2

Product Code	Pack Size	Carton Qty
INDGR100LXEP200045	450 Grams	6
INDGR100LXEP2180	180 Kilograms	1

Colour: **Brown**
Recommended Operating Temperature Range: **-20°C to 160°C**

Key Specifications: NLGI 2, DIN 51502 KP2N-20, ISO 6743, ISO-L-XCDIB2

Penrite Indgrease 100 LXEP 2 is a premium, high melting point, NLGI 2, lithium complex grease. It is a high temperature grease designed to meet the most demanding grease applications especially where a low base oil viscosity and long life is required. It is recommended for use in most types of industrial applications operating under high speed and conditions where shock loads, extreme pressure and vibration may occur. It can provide long life protection for rolling element bearings, plain bearings, gears and couplings in applications that include electric motors, pumps, fans and generators.

Indgrease Moly HT

Product Code	Pack Size	Carton Qty
INDGRSMOLYHT00045	450 Grams	6
INDGRSMOLYHT018	18 Kilograms	1
INDGRSMOLYHT180	180 Kilograms	1

Colour: **Grey**
Recommended Operating Temperature Range: **0°C to 160°C**

Key Specifications: NLGI 1.5

Indgrease Moly HT is a premium heavy duty, NLGI 2 grease designed for the mining and construction industries. It is a smooth black grease based on a lithium complex thickener. It is formulated with high quality base stocks combined with extreme pressure additives for maximum loading applications and anti-wear protection. Indgrease Moly HT is the prime recommendation for mining and construction applications. The extreme load capability makes it ideal for bucket pins, plain and roller bearings and all other heavy duty applications in the mining, construction and industry in general.

CALCIUM GREASES

Graphite Grease

Product Code	Pack Size	Carton Qty
GRGR0004	400 Grams (UK)	6
GRGR0005	500 Grams	6

Colour: **Grey/Black**
Recommended Operating Temperature Range: **Max 60°C**

Key Specifications: NLGI 3

Penrite Graphite Grease is a NLGI 3, graphite impregnated calcium based grease, designed for the lubrication of spring leaves, handbrake cables, flexible drives and exposed chains. Suitable for use in slow speed plain bearings and slides where a heavy grease with solid lubricants is required. Can be used in industrial, mining and construction equipment including bulldozers, scrapers, loading shovels and dump trucks.

Water Pump Grease

Product Code	Pack Size	Carton Qty
WPGR00005	50 Grams	6

Colour: Amber
Recommended Operating Temperature Range: 0°C to 75°C

Key Specifications: NLGI 4

Penrite Water Pump Grease is an NLGI 4, moderate duty grease manufactured from high quality base oils and a calcium soap. It is recommended for the lubrication of water pumps in older vehicles or in fire fighting and irrigation equipment requiring a heavy grease. Water Pump Grease can be used in spring loaded greasing units, via a grease gun to pump shafts or in screw applied greasers.

CALCIUM COMPLEX GREASES

Indgrease 1615 WR

Product Code	Pack Size	Carton Qty
INDGR1615WR020	18 Kilograms	1
INDGR1615WR180	180 Kilograms	1

Colour: Brown
Recommended Operating Temperature Range: -20°C to 150°C

Key Specifications: NLGI 1.5, DIN 51502: KP1.5N-20, ISO 6743: ISO-L-XBDFB1.5

Penrite Indgrease 1615 WR is an NLGI 1.5, calcium sulphonate complex thickened, extreme pressure lubricating grease based on mineral oil. Contains antioxidants and corrosion inhibitors. Does not contain conventional EP- and anti-wear additives since they are built in as an integral part of the soap structure. Indgrease 1615 WR is a modern high performance product especially suitable for industrial applications. The extreme load carrying capacity and the excellent water resistance make the product a perfect choice for heavily loaded applications or wet and corrosive environments.

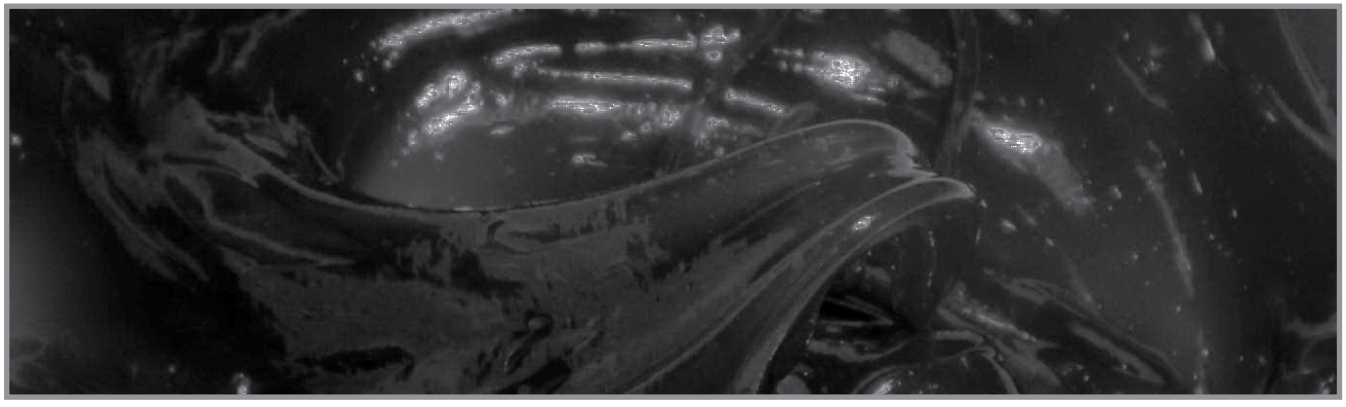
Indgrease CX 152 WR

Product Code	Pack Size	Carton Qty
INDGRCX152WR00045	450 Grams	6
INDGR1615WR180	20 Kilograms	1

Colour: Beige
Recommended Operating Temperature Range: -20°C to 150°C

Key Specifications: NLGI 2.0, DIN 51502: KP2N-20, ISO 6743: ISO-L-XBEIB2

Penrite Indgrease CX 152 WR is a calcium sulphonate complex thickened, extreme pressure lubricating grease based on mineral oil. The grease contains antioxidants and corrosion inhibitors. The product does not contain conventional EP- and anti-wear additives since they are built in as an integral part of the soap structure. Indgrease CX 152 WR is a modern high performance product especially suitable for marine and industrial applications. The extreme load carrying capacity and the excellent water resistance make the product a perfect choice for heavily loaded applications or wet and corrosive environments.



MIXED COMPLEX GREASES

QCA Grease MX9

Product Code	Pack Size	Carton Qty
QCAG00045	450 Grams	6
QCAG020	20 Kilograms	1
QCAG180	180 Kilograms	1

Colour: **Grey/Black**
Recommended Operating Temperature Range: **-20°C to 140°C**

Key Specifications: NLGI 2, Caterpillar MPGM

Penrite QCA Grease MX9 is an NLGI 2, advanced technology, mixed-complex grease, containing 9% solids that provide additional lubrication in severe heavy duty applications where high shock loads are common including those in corrosive environments. These include in industrial plants and off-highway equipment used in the mining, agricultural, forestry and construction industries to name a few. Ideal for shackles, bolts, ball joints, king-pins, slow speed bearings, universal joints, CV (constant velocity) joints and may be used as a fifth wheel lubricant.

Indgrease CXOG-05

Product Code	Pack Size	Carton Qty
INDGRCXOG5018	18 Kilograms	1
INDGRCXOG5180	180 Kilograms	1

Colour: **Dark Brown**
Recommended Operating Temperature Range: **-20°C to 140°C**

Key Specifications: NLGI 0.5, DIN 51 502: KPGOG0.5N-30, ISO 6743: ISO-L-XCDIB0.5

Penrite Indgrease CXOG-05, NLGI 0.5 advanced technology lithium-calcium complex grease with built-in extreme pressure and anti-wear properties. Enhanced by the addition of anti-oxidant and corrosion inhibitors. Uses special tackifiers to help stay in place and adhere to critical surfaces. Provides a superior outcome over "super-stringy" greases that adhere to themselves but not surfaces. Recommended in severe heavy duty applications where high shock loads are common including those in corrosive environments. Suitable for industrial plants and off-highway equipment used in the mining, agricultural, forestry and construction industries.

CLAY BASED GREASES

Copper Eze

Product Code	Pack Size	Carton Qty
CEZE0001	100 Grams	6
CEZE0005	500 Grams	6

Colour: **Copper**
Recommended Operating Temperature Range: **0°C to 1093°C**

Key Specifications: NLGI 1.5

Penrite Copper Eze is an NLGI 1.5, bentone based anti-seize grease containing micro-size copper, zinc oxide and additional synthetic base oil that resists temperatures up to 1093°C. Used to coat flanges, threads, nuts, bolts that are subject to corrosion or seizure etc. prior to assembly, to enable easy disassembly for service or replacement. Ideal for exhaust manifold studs, exhaust clamps, turbocharger connections, spark plug threads and in brake assemblies. Ideal for disc brake calliper sliding pins.

Indgrease BM3

Product Code	Pack Size	Carton Qty	Colour: Grey Recommended Operating Temperature Range: -20°C to 200°C
IGRBM300045	450 Grams	6	Key Specifications: NLGI 3

Penrite Indgrease BM3 is a highly specialised, NLGI 3, bentone clay no-melt type grease, manufactured with highly refined base oils and Molybdenum disulphide. Suitable for equipment exposed to severe weather conditions such as cranes, conveyor chains, ore crushers, rolling mills and other exposed drives. Recommended for use on trucks and buses on chassis points and fifth wheel areas. Can be used in industrial, construction and agricultural equipment where applications include medium and large size plain bearings, large diameter ball and roller bearings running at low speeds.

OTHER GREASES

Cam Assembly Lube

Product Code	Pack Size	Carton Qty	Colour: Grey Recommended Operating Temperature Range: N/A
CAM0001	100 Grams	6	

Penrite Cam Assembly Lube is a special purpose sticky paste formulated with a lithium grease, designed for the initial lubrication of engine parts during the engine assembly process. These items include camshaft lobes, followers, journals, camshaft and crankshaft bearings, pushrod tips, rockers, bushes, gears, thrust bearings and timing chains. It contains rust inhibitors, oxidation inhibitors, tackiness additives, zinc and graphite anti-wear agents to provide outstanding engine lubrication protection prior to and during first starting of new or rebuilt engines.

Rubber Grease

Product Code	Pack Size	Carton Qty	Colour: Red Recommended Operating Temperature Range: -9°C to 80°C
RUBGR0005	500 Grams	6	Key Specifications: NLGI 2
RUBGR020	20 Kilograms	1	

Penrite Rubber Grease is a premium quality NLGI 2, clay based grease. Contains castor oil for use with natural and or synthetic rubber. Used as a general purpose, non-harmful grease for industrial, automotive rubber parts such as hydraulic dust covers, braking system components, seals and washers. Designed for use on rubber components in hydraulic systems and for use with other rubber components such as gaiters or boots used on these systems.

CEPSA Arga Force

Product Code	Pack Size	Carton Qty	Colour: Black Recommended Operating Temperature Range: -20° to 150°
CEPARGAFORCE018	18 Kilograms	1	

CEPSA Arga Force is special adhesive synthetic grease for open gears and cables. Incorporates solid lubricants and other additives carefully selected to provide total stability against the highest pressures and loads. For all types of open gears installed in ship deck machinery, with peripheral speeds, including those above 10 m/min and drag lines on fishing boats and tug boats, building & public works machinery, mines, paper industry, port transport and lifting machines, furnaces and mills from the chemical and cement industry, rubber processing machinery.

PENRITE PRODUCT	Grams					Millilitres	Kilograms				
	50	100	400	450	500	500	2.5	18	20	55	180
Extreme Pressure Grease	-	-	-	⊙	⊙	-	⊙	-	⊙	⊙	⊙
Molygrease EP 3%	-	-	-	⊙	⊙	-	⊙	-	⊙	⊙	⊙
Semi Fluid Grease	-	-	-	⊙	-	⊙	-	-	⊙	-	-
Indgrease Lith EP 0	-	-	-	-	-	-	-	-	⊙	-	-
Indgrease Lith EP 2	-	-	-	⊙	-	-	-	-	⊙	-	-
Indgrease Lith R3	-	-	-	⊙	-	-	-	-	-	-	-
High Temperature Wheel Bearing Grease	-	-	-	⊙	⊙	-	⊙	-	⊙	⊙	⊙
Marine Grease	-	-	-	⊙	⊙	-	⊙	-	-	-	-
ACT Grease XEP2	-	-	-	⊙	-	-	-	-	-	-	⊙
Indgrease 100 LXEP2	-	-	-	⊙	-	-	-	-	-	-	⊙
Indgrease Moly HT	-	-	-	⊙	-	-	-	⊙	-	-	⊙
Graphite Grease	-	-	⊙	-	⊙	-	-	-	-	-	-
Water Pump Grease	⊙	-	-	-	-	-	-	-	-	-	-
Indgrease 1615 WR	-	-	-	-	-	-	-	⊙	-	-	⊙
Indgrease CX 152 WR	-	-	-	⊙	-	-	-	-	⊙	-	-
QCA Grease MX9	-	-	-	⊙	-	-	-	-	⊙	-	⊙
Indgrease CXOG-05	-	-	-	-	-	-	-	⊙	-	-	⊙
Copper Eze	-	⊙	-	-	⊙	-	-	-	-	-	-
Indgrease BM3	-	-	-	⊙	-	-	-	-	-	-	-
Cam Assembly Lube	-	⊙	-	-	-	-	-	-	-	-	-
Rubber Grease	-	-	-	-	⊙	-	-	-	⊙	-	-
CEPSA Arga Force	-	-	-	-	-	-	-	⊙	-	-	-