



# BP Energrease SY Series

Multi-purpose high performance grease

## Description

The BP Energrease™ SY series are super premium extreme pressure (EP) greases primarily intended for a wide variety of applications at extremes of temperature. They combine the unique features of a synthetic base fluid with those of a lithium complex thickener. The wax-free nature of the synthetic base oil and the low coefficient of traction (compared with mineral oils), provide excellent low temperature pumpability and very low starting and running torque. They offer the potential for energy savings and can reduce operating temperatures in the load zone of rolling element bearings. The lithium complex thickener gives excellent adhesion, structural stability and water resistance. The greases have a high level of chemical stability and provide excellent protection against wear, rust and corrosion; at high and low temperatures.

Energrease SY series do not contain-lead, chlorine or nitrites.

## Application

Energrease SY 1501 is an NLGI 1 grade grease with an exceptionally high ISO VG 1500 synthetic base fluid. It is intended for use in plain and rolling element bearings operating at extremely slow speeds, under heavy loads and high temperatures. Energrease SY 1501 has a recommended operating temperature range of -20°C to 180°C with appropriate re-lubrication intervals.

Energrease SY 2202 is a multi-purpose, extreme pressure grease recommended for heavy duty automotive and industrial applications. It uses an ISO VG 220 synthetic fluid and although it is a NLGI 2 grade product, it has excellent low temperature pumpability and a recommended operating temperature range of -40°C to 180°C.

Energrease SY 4601 is recommended for tough industrial applications. It gives outstanding bearing protection under high loads at low to moderate speeds and in applications where water resistance is critical. Energrease SY 4601 is recommended for use in steel and paper mills. Recommended operating temperature range is -40°C to 180°C.

Energrease SY 4600 is formulated from an ISO VG 460 synthetic base fluid to an NLGI grade 00 consistency. Recommended operating temperature range is -40°C to 180°C. It's primary use is in grease filled gear cases subject to high temperatures, where conventional semi-fluid greases deteriorate rapidly. It is also suited for sealed heavy-duty truck wheel bearings.

## Advantages

Energrease SY series offer the following benefits:

- Reduced downtime and maintenance costs because of reduced wear, rust and corrosion
- Outstanding high and low temperature performance
- Extended service life with longer intervals between re-lubrication
- Reduced energy consumption due to low traction coefficient
- Ability to perform well in the presence of water

## Typical Characteristics

Test	Method	Units	1501	2202	4601	4600
Thickener Type	-	-	Lithium Complex	Lithium Complex	Lithium Complex	Lithium Complex
NLGI Classification	ISO 2137 / ASTM D 217	-	1	2	1.5	00
Colour	Visual	-	Yellow / brown	Yellow / brown	Yellow / brown	Yellow / brown
Texture	Visual	-	Smooth / Slightly tacky	Smooth / Slightly tacky	Smooth / Slightly tacky	Smooth / Slightly tacky
Drop Point	ISO 2176 / ASTM D2265	°C	>260	>260	>260	>240
Base Oil Viscosity @100 °C	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	-	-	47	47
@ 40 °C	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	1500	220	460	460
Worked Penetration, 25°C / 60 Strokes	ISO 2137 / ASTM D217	0.1 mm	310 - 340	265 - 295	290 - 320	400 - 430
Water Spray-off	ASTM D4049	%	-	20	-	-
Rust Prevention (Distilled Water)	IP 220 / DIN 51802	-	0-0	0-0	0-0	0-0
Water Washout @ 38°C	ASTM D1264	%wt	1.4	-	3	-
@ 79°C			-	-	5	-
4-Ball Weld Load	ASTM D2596	N	3200	>3200	>3200	3600
4-Ball Wear Scar diam	ASTM D2266	mm	0.6	0.5	0.5	0.5
Timken OK Load	ASTM D2509	lbs	55	55	55	55
Roll Stability	ASTM D1831	Change	+60 max.	+60 max	+60 max	+60 max

## Additional Information

In order to minimise potential incompatibilities when converting to a new grease, all previous lubricant should be removed as much as possible prior to operation. During initial operation, re-lubrication intervals should be monitored closely to ensure all previous lubricant is purged.

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BP Limited, Pipers Way, Swindon, Wiltshire SN3 1RE, UK  
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