# perma MULTI LC SYN 220-1 (SF120) perma MULTI LC SYN 220-2 (SF130)

# Premium Multipurpose EP grease

perma MULTI LC SYN 220-1 & -2 greases are based on semi-synthetic base oils and lithium / calcium complex mixed-soap thickeners. The greases contain extreme-pressure, anti-wear, anti-oxidation and anti-corrosion additives. perma MULTI LC SYN 220-1 & -2 greases are suitable for general rolling bearing applications including conveyors, high speed pumps and hot air fans. They are particularly suited for wet environments and bearings operating at higher temperatures. The semi-synthetic base oil provides extended operating temperature range.

### **Advantages**



#### **EXCELLENT MECHANICAL STABILITY**

Mechanical stability is the grease thickener resistance to softening and leaking under stress. Good mechanical stability is essential for long grease service life, retention in bearing contact zones and preventing contaminant entry.



#### **EXCELLENT ADHESION IN THE PRESENCE OF WATER**

Good adhesion aids retention in bearing contact zones and preventing contaminant entry, contributing to good lubrication conditions.



## **GOOD PUMPABILITY**

Good pumpability assists in predicting grease dispensing outcomes for perma lubrication systems installed and operated within recommended guidelines.



# SUPERIOR PROTECTION AGAINST EXTREME PRESSURES AND SHOCK LOADING

Excellent mechanical stability and adhesion aid grease retention under high and shock loads. EP & AW additives reduce friction and provide wear protection where metal-to-metal contact occurs.



# **EXCELLENT PERFORMANCE IN WET ENVIRONMENTS**

Excellent mechanical stability and adhesion contribute to water wash-out resistance. The Li-Ca thickener resists water absorption.



# HIGH TEMPERATURE PERFORMANCE AND OXIDATION RESISTANCE

Oxidation is the primary way a lubricant degrades in normal service. The semi-synthetic base oil possesses high temperature oxidation resistance. Antioxidant additives further prolong the service life of the base oil.

### **Application**

perma MULTI LC SYN 220-1 & -2 greases are semi-synthetic multipurpose EP lubricants suited for the lubrication of rolling bearing, plain bearing, linear bearing, slide and radial shaft seal applications.

These greases are suited to rolling bearing applications operating at elevated temperature or in wet environments. They are suited to demanding applications in mining & minerals processing, steel mills, cement & aggregate, pulp and paper and other heavy industries.

#### TYPICAL APPLICATIONS INCLUDE:

- Conveyor pulley bearings and seals exposed to high levels of water
- → Slurry and process pump bearings and seals particularly pumps operating at elevated temperatures or higher operating speeds
- → Blower and fan bearings (large fans or fans under moderate load at lower speeds)
- ightarrow Large-frame, low speed electric motors
- → Vibrating screen bearings (MULTI LC SYN 220-2)
- → Gearbox seals operating in wet environments



# **Product information**

perma MULTI LC SYN 220-1 & -2 greases have been tested in perma lubrication systems to assess grease pumpability and oil bleed performance. This process assists in predicting the dispensing behavior from perma lubrication systems when installed and used within normal operating guidelines.

perma MULTI LC SYN 220 is available in NLGI 2 (-2) AND NLGI 1 (-1) grades. The combination of semi-synthetic base oil and NLGI 1 grade grease offers enhanced pumpability in perma lubrication systems exposed to cold ambient temperatures down to  $-22 \, ^{\circ}\text{F} / -30 \, ^{\circ}\text{C}$ .

# **Product data**

perma Product Name	MULTI LC SYN 220-1	MULTI LC SYN 220-2
perma Grease Code	SF120	SF130
NLGI Grade	1	2
Color	Blue	Blue
Thickener	Lithium Calcium	Lithium Calcium
Base oil	Semi-Synthetic Oil	Semi-Synthetic Oil
Base oil viscosity, DIN 51562, at 40 °C, mm²/s at 100 °C, mm²/s	230 18	230 18
Dropping Point (ASTM D 2265)	374 °F / 190 °C	374 °F / 190 °C
Min working temperature	-22 °F / -30 °C	-22 °F / -30 °C
Max working temperature	284 °F / 140 °C	284 °F / 140 °C
4 Ball Weld (ASTM D 2596)	694 lbs / 315 kg	694 lbs / 315 kg





Pumps



Blowers | Fans