

perma FOOD CS SYN 220-1 (SF161)

perma FOOD CS SYN 220-2 (SF171)



Nonfood Compounds
H1

Premium Food Grade Multipurpose EP grease

perma FOOD CS SYN 220-1 & -2 greases are based on PAO synthetic base oils and lithium / calcium sulfonate soap thickeners. The greases contain extreme pressure (EP), anti-wear (AW), anti-oxidation and anti-corrosion additives. perma FOOD CS 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. The NLGI 1 grease with PAO synthetic base oil ensures excellent pumpability at very low temperatures.



GOOD EXTREME PRESSURES LOAD PERFORMANCE

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 CS thickener resists water absorption.



HIGH TEMPERATURE PERFORMANCE AND OXIDATION RESISTANCE

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

Application

perma FOOD CS SYN 220-1 & -2 greases are NSF H1 registered premium synthetic multipurpose EP lubricants suited for the lubrication of rolling bearing, plain bearing, slides and radial shaft seal applications. They are particularly suited for applications exposed to high levels of water or moisture.

The greases are suited to general bearing and other applications where incidental and unavoidable contact with products and packaging may occur in the food processing, pharmaceutical, cosmetic and animal feed industries. We recommend conducting risk analysis such as HACCP prior to using these lubricants.

TYPICAL APPLICATIONS INCLUDE:

- Conveyor pulley bearings and seals
- Process pump bearings and seals
- Blower and fan bearings
- Packaging equipment in food, beverage and dairy plants
- Gearbox seals
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Product information

perma FOOD CS 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 FOOD CS 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 -40 °F / -40 °C.

Product data

perma Product Name	FOOD CS SYN 220-1	FOOD CS SYN 220-2
perma Grease Code	SF161	SF171
NLGI Grade	1	2
Color	Off-White	Off-White
Thickener	Calcium Sulfonate	Calcium Sulfonate
Base oil	PAO Synthetic Oil	PAO Synthetic Oil
Base oil viscosity, DIN 51562, at 40 °C, mm ² /s at 100 °C, mm ² /s	220 25.5	220 25.5
Dropping Point (ASTM D 2265)	600 °F / 316 °C	600 °F / 316 °C
Min working temperature	-40 °F / -40 °C	-40 °F / -40 °C
Max working temperature	375 °F / 190 °C	375 °F / 190 °C
Worked Penetration – 0.1mm (ASTM D 217)	310 - 340	265 - 295
Mechanical Stability - 100,000 strokes, % Change (ASTM D 217)	< 3 %	< 3 %
Water Washout, % removed (ASTM D 1264)	< 2 %	< 1 %
Oil Separation, % loss (ASTM D 1742)	< 0.5 %	< 0.5 %
Timken OK Load, Lbs. (ASTM D 2509)	55 lbs / 25 kg	55 lbs / 25 kg
4 Ball Weld (ASTM D 2596)	882 lbs / 400 kg	882 lbs / 400 kg



Conveyors



Pumps



Blowers | Fans

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