







KELVINPLUS-220&460

Calcium Sulfonate Grease

Product Description

KELVINPLUS- 220 & 460 is premium quality calcium Sulfonate complex grease to withstand high temperature. This is specially formulated to meet the demand of severe high temperature and Strong resistance to shock loads and high pressure. The colloidal structure of Calcium Sulfonate greases gives them special properties and allows them to attain a high level of performance without recourse to high percentages of additives. This natural performance for this grease chemistry allows for effective, multipurpose and long-lasting lubrication.

A continuous temperature of 400°F (200°C) is within its safe range. It can withstand 550°F (288°C) continuously, provided the bearing is replenished every 30 minutes with normal quantities of grease. Occasional temperature spikes to 600°F (315°C) can be sustained for 5 to 10-minute periods without melting or carbonizing.

Kelvinplus 460 EP 2 may be used at DN speeds up to 250,000. (NLGI grade 2) is designed for slower moving bearings up to 150,000 DN.

Application:

- KELVINPLUS- 220 & 460 greases are recommended for both plain and rolling bearings. These are preferred for Lubrication under high load and high temperature conditions. Also used for Crusher screen bearings, Pelleting press bearings, Cables and capstans, Slide ways and Open gears.
- Water / Chemicals: Phosphate processing, suction and wet end rolls on paper machines, outdoor cranes and ship lifts, boat trailer wheel bearings and other marine applications
- Highly Loaded Equipment: Pellet mills, shaker screens, belt conveyor pulleys, slewing bearings, pin and bushing, centrifuges, hammer mills, sealed work roll bearings, fan bearings and many others
- High Temperature Applications: Oven conveyor, bearings plastic extruder bearings, rotary unions on roto-molders
- Automotive and Earthmoving Applications: Wheel bearings, U-joints, ball joints, pin-and-busing pivot points and slewing bearings

Features and Benefits

- It works on wide range of temperature
- Has excellent resistance to impacts and vibrations thereby enabling it to withstand sustained exposure to shock loads and high pressure
- Has excellent resistance to water wash out.
- Anti-corrosion protection even in salty environments
- High dropping point and service temperature
- LONG LIFE reduced re-lubrication frequency
- WATER RESISTANT seals out water, even in under water applications
- WIDE SPEED RANGE recommended for use in electric motor bearings as well as slow moving bearings and bushing

Technical Data Sheet



Additional Information

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

Typical Properties

Parameters	Test Method	KELVINPL US-100	KELVINPLUS-220		KELVINPLUS-460	
NLGI	ASTM D 217		1	2	1	2
Color	Visual	Beige	Beige	Beige	Beige	Beige
Appearance	Visual	Smooth	Smooth	smooth	smooth	Smooth
Thickener		Calcium Sulfonate Complex	Calcium Sulfonate Complex	Calcium Sulfonate Complex	Calcium Sulfonate Complex	Calcium Sulfonate Complex
Kinematic Viscosity of the base oil at 40°C	ASTM D 445	100	220-240 CST	220-240 CST	460-480 CST	460-480 CST
Service Temperature		-25 To 80°C	-20 To 260 ºC	-20 To 260 °C	-20 To 260 ºC	-20 To 260 ºC
Penetration at 25°C	ASTM D 217	285-315	310-340	265-295	310-340	265-295
Penetration after 100 000 strokes,0.1 mm	ISO 2137		11	11	21	21
Dropping point	IP 396	>100	270	270	270	270
Oil release 50 hours, 100 °C,%	ASTM D 6184	1.3	1.4	1.4	1.7	1.7
Oil release 168 hours, 40°C	NF T 60- 191	0.9	0.9	0.9	1.1	1.1
Oxidation stability at 99°C +-0.5°C						



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Pressure drop after 100 hours,psi	ASTM D 942	4	4	4	5	5
Pressure drop after 500 hours ,psi	ASTM D 942	11.5	13.5	13.5	16	16
EMCOR, distilled water	ISO 11007	0-1	0-0	0-0	0-0	0-0
EMCOR, synthetic sea water	ISO 11007	0-1	0-0	0-0	0-0	0-0
Copper corrosion, 24 hours at 100°C	ASTM D 4048	1b	1b	1b	1b	1b
Antiwear and EP properties						
Four ball wear (scar diameter),mm	ASTM D2266	0.48	0.48	0.45	0.48	0.45
Four ball weld load,kgf	ASTM D2596	400	400	400	800	800
Cold properties						
Penetration at - 20°C,0.1 mm	ISO 13737		160	160	95	95
Flow pressure at -20°C,mbar	DIN 51 805		560	560	1160	1160
Flow pressure at 1400 mbar,°C	DIN 51 805		-30	-30	-20	-20
Torque at -20°C						
Starting torque,g.cm	ASTM D 1478		2600	2600	890	890
After 1 hour			460	460	72	72
Water Washout			1	1	1	1

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Available Packs: 5, 18,180 Kg

Shelf Life - 36 Months from the Manufacturing month

Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly. The Material Safety Data Sheet (MSDS) are available upon request through our sales office. All related specifications are meets or exceeds.