

#### S-350<sup>TM</sup>

### **Superior Calcium Sulfonate Complex Grease**

#### **DESCRIPTION**

S-350 high performance calcium sulfonate grease is multipurpose grease suitable for industrial, automotive and marine applications.

#### BENEFITS

- > Excellent shear stability
- > Very high load carrying properties
- > Resists fresh water and salt water
- > Resists corrosion and oxidation
- ➤ Outstanding high temperature properties from -40°C (-40°F) to +316°C (+600°F)
- ➤ NLGI Approved GC-LB for wheel bearings and chassis
- Food approved standard H-2, CFIA Registration No.: /L 125
- > High dropping point
- Resists water washout, rust, oxidation and heat
- ➤ Contains NO heavy metals or other environmentally undesirable additives such as phosphorus, zinc, chlorine, sulfur, phenols, antimony, lead, barium, lithium or aluminium.
- > Compatible with seals
- Dielectric properties

#### APPLICATIONS

- ➤ Automotive chassis and bearings NLGI GC-LB
- ➤ Antifriction bearings.
- Oven conveyor.
- ➤ Electric motor bearings.
- > Bearings on ships.
- ➤ Offshore and underwater applications.
- ➤ Many others where corrosion and water washout is a concern.
- > Industrial bearings

- Conveyors.
- Axles.
- > Sliding and thrust bearings.
- > Steel mill rollers.
- > Crusher bearings
- > Agricultural equipment.
- ➤ Wheel bearings.
- > Ski and golf equipment.
- ➤ Motor operated steam valves (EP-0)
- ➤ Gear boxes (EP-0)

The above information is true and precise to the best of our knowledge. All recommendations or suggestions are made without warranty since the circumstances and conditions are beyond our control.



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PHYSICAL PROPERTIES	Result
N.L.G.I GRADE	2
COLOUR	Tan
DROPPING POINT, ASTM D2265, °C (°F)	+316 (+600)
WEAR PERFORMANCE / EXTREME PRESSURE	
TIMKEN OK LOAD, ASTM D2509, kg (lb)	36 (80)
4 BALL EP, ASTM D2596, load wear index, kg Weld point, kg (lbs)	67 620 (1367)
4 BALL WEAR, ASTM D2266, scar diameter, mm	0.39
Fretting Wear Protection, mgs loss, ASTM D 4170 Ambient Temperature @ -18°C (0°F)	2.50 6.2
LEAKAGE / SEPARATION CHARACTERISTICS	
OIL SEPARATION, ASTM D1742, mass % WHEEL BEARING LEAKAGE, ASTM D1263, % loss grams	≤0.5 0.4
CORROSION RESISTANCE	
RUST TEST, ASTM D1743 rating SALT FOG CORROSION ASTM B117, hours to failure GREASE RUST TEST: Synthetic Sea Water. ASTM D5969 EMCOR CORROSION TEST: ASTM D6138.	pass >1000 pass 0
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#### **OXIDATION RESISTANCE**

BOMB OXIDATION, ASTM D942, psi drop after 1000 hours	9.0
500 hours	2
100 hours	0

#### WATER PERFORMANCE

WATER WASHOUT, ASTM D1204, at 79 C (173 F), % loss	WATER WASHOUT	, ASTM D1264, at 79°C (175°F), % loss	<1
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#### MECHANICAL STABILITY

CONSISTENCY, ASTM D217, worked penetration, mm/10, 60strokes	280
WORKED STABILITY, ASTM D217, % change from baseline	
Worked 100,000 strokes	2
Worked 10,000 strokes, with 50/50 water mixture	1
Roll Stability % Change ASTM D1831	< 3.0

#### BASE OIL CHARACTERESTICS

Viscosity @ 40 C cSt	220
Viscosity @ 100 C cSt	18.9
Viscosity Index ASTM D2270	96.15
Pour Point, °C (°F)	-15 (5)

#### **Food Approved**

Standard H-2 by CFIA. Canadian Food Inspection Agency. *Branch for food equipment*. Avoid direct contamination during application or during storage.

File number: 3100-3/L125

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#### **DIELECTRIC STRENGTH TESTS**

ASTM D149 Diele	ectric Strength per Mil-C-86600	<u>.</u>	
½ inch hemispheric	cal electrodes 500 volts/second ra	te of rise, 50% R.H.	
1			
10 mil gap	Breakdown Voltage		
	Run 1	3.29 kV	
	Run 2	4.46 kV	
	Run 3	4.20 kV	
	Run 4	4.00 kV	
	Run 5	4.65 kV	
	Average	4.12 kV	
	Breakdown Voltage	412 volts/min	
50 mil gap	Breakdown Voltage		
<u> </u>	Run 1	17.44 kV	
	Run 2	16.86 kV	
	Run 3	14.85 kV	
	Run 4	15.95 kV	
	Run 5	17.05 kV	
	Average	16.43 kV	
	Breakdown Voltage	329 volts/min	

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ASTM D150	Results
@ Ambient Temperature	
Dielectric Constant	K' = 3.103
Dissipation Factor	D factor = $0.1317$

ASTM D257 (ASTM D1169) Volume Resistivity	3.63 x 10 <sup>9</sup> ohm-cm
@ Ambient Temperature @ 1 minute Electrification @ 500 Volts D.C.	

#### Availabilities:

Case of 50 cartridges, 15.85 kg (35 lb/pail), 55 kilos (121 lb/keg), 180 kilos (396 lb/drum).

**NLGI Grade Availability**: EP-2 and EP-0.

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