

# Inplex 2163-220 NLGI-2 & NLGI-3

## **Product Description**

**Inplex 2163** is a calcium sulphonate grease designed for heavy duty use. It provides excellent lubrication in steel and paper making machinery and many other heavy industrial applications.

#### **Product Features & Benefits**

**Inplex 2163** contains no heavy metals or other harmful or environmentally undesirable additives such as sulphur, phosphorus, chlorine, zinc, phenols, antimony, barium or lead.

## **Application:**

Inplex 2163 is suitable for use in automotive, industrial, construction, agriculture, railroad, and mining operations.

Specific applications include:

- All chassis points for automotive
- Fifth wheels
- King pins
- Anti-friction bearings
- Low and high speed journal bearings
- Oven conveyors, electric motor bearings, steel mill roller bearings
- On farm and earth moving equipment
- Severe industrial applications such as pulp, steel mills

Inplex 2163 is also excellent for use in marine type applications where water washout and corrosion are of primary concern.

The benefits of Inplex 2163 are:

- Outstanding mechanical ability
- Excellent load carrying ability
- Excellent thermal stability
- > Excellent oxidation stability
- Excellent resistance to water
- Very good water washout
- Excellent corrosion resistance

#### **Additional Information**

Inplex 2163 is a calcium sulphonate grease designed for heavy duty use. It provides excellent lubrication in steel and paper making machinery and many other heavy industrial applications.

Calcium Sulphonate greases are technically advanced premium greases characterised by exceptional mechanical stability, excellent resistance to rust and corrosion and very high heat and load carrying capabilities.



# Inplex 2163-220 NLGI-2

Physical Results for NLGI-2 Grade			
Test	Method	Results	
Colours	Visual	Tan	
Texture	Visual	Smooth	
Dropping Point, °C	ATSM D2265	>280°C	
Consistency, 60 strokes, mm/10	ASTM D217	280	
Mechanical Stability Worked 10,000 Strokes, % change Worked 10,000 Strokes, with 50/50 water, %	ASTM217	2.3% 8.0% 8.0%	
Timken OK Load, kg 4-Ball EP LWI, kgf Weld Point, kg	ASTM D2509 ASTM D2596	27.2 kg 110 kg 800 kg	
4-Ball Wear, mm	ASTM D 2266	0.04 mm	
Rust Test rating	ASTM D1743	Pass	
Salt Fog Corrosion, 1 mil d.f.t, hours	ASTM B117	>300 hr	
Copper Corrosion, rating	ASTM D4048	1A	
Wheel Bearing Leakage, grams	ASTM D4290	4.0 grm	
Bearing Life Performance, hours	ASTM D3527	160 hrs	
Bomb Oxidation, psi drop after 1000 hours	ASTM D942	9.0 psi	
Water Washout at 38 °C, % lost	ASTM D1264	< 1.0 %	
Resistance to Water Spray, % retained	ASTM D4049	80%	
Oil Separation, % loss	ASTM D1742	0.2%	
Mobility @ -18 °C, g/minute	US Steel Method	5.5	

The values quoted above are typical of normal production. They do not constitute a specification.



## Inplex 2163-220 NLGI-3

Physical Results for NLGI-3 Grade			
Test	Method	Results	
Colours	Visual	Tan	
Texture	Visual	Smooth	
Worked Penetration, 25 °C, 60 Strokes 10,000 Strokes change from 60 Strokes 100,000 Strokes change from 60 Strokes	ASTM D 217	240 ±1 ±2	
Dropping Point, °C	ATSM D 2265	300	
Rust Prevention	ASTM D 1743	Pass	
Oxidation Stability, PSI Loss, 100 hours 500 hours 1,000 hours	ASTM D 942	0 2 9	
Roll Stability, Penetration Change	ASTM D 1831	+2	
Oil Separation, 24 hours @ 25 °C	ASTM D 1742	0.17	
Four Ball EP, Weld Point, kg	ASTM D 2596	500	
Four Ball EP, Load Wear Index, kg	ASTM D 2596	65	
Four Ball Wear, Scar mm	ASTM D 2266	0.39	
Timken OK Load, kg	ASTM D 2509	29.4	
Salt Fog, hours	ASTM B 117	4000	
Water Washout, % loss		2.75	
Wheel Bearing Leakage, % loss, gms	ASTM D 1263	0.4	
Fretting Wear Protection, mgs loss Ambient Temperature @-17.7 °F	ASTM D 4170	2.50 6.20	
Base Oil Characteristics			
Viscosities:  @ 100 °C, cSt  @ 40 °C, cSt  Viscosity Index		16.5 233 95	
Pour Point, °C		-17.7	

The values quoted above are typical of normal production. They do not constitute a specification.

Master Item# 1813 & 1815
Pack Size Availability: NLGI 2:450g, 2.5kg, 20kg, 180kg
NLGI 3: 20kg, 180kg

Last Updated: 10th March 2022