

Open Gear All Seasons™



Product Description

D-A **Open Gear All Seasons™** provides maximum protection to open gears, racks and pinions, and slides on large draglines and shovels. The maximum protection is achieved by formulating with a combination of high viscosity oils, thermal plasticizing hydrocarbon resins, and polymers that have been specifically selected to provide the formation of tenacious lubricant film that adheres to the mating surfaces. The lubricant does not squeeze out, but the film is soft enough and stays pliable over time, minimizing lubricant build-up in the roots of the gear tooth. This combination of high viscosity oils, resins, and polymers provide excellent water resistance.

The unique high viscosity oil blend is fortified with about 15% high purity lubricating solids, including a minimum of 2% Moly, and a combination of the latest in Extreme Pressure (EP) and Anti-Wear (AW) additives. The lubricating solids work synergistically with the EP and AW additives to reduce friction which results in the reduction of contact temperatures, while providing excellent anti-weld and anti-scuffing protection under extreme pressure, shock loading, and slow speeds. The combination of the unique oils, resins, polymers, lubricating solids, and the specially selected EP and AW additives generate a tough and durable lubricant film with excellent adherence that separates the mating surfaces, which greatly reduces metal to metal contact and wear. The generated lubricating film provides excellent water resistance and minimizes peeling off during dry and dusty conditions.

D-A **Open Gear All Seasons™** is formulated with the most advanced rust and corrosion inhibitors to protect all of the components against any harsh environmental or process contaminants.

When applied properly, D-A **Open Gear All Seasons™** significantly reduces lubricant consumption when compared to conventional lubricants.

D-A **Open Gear All Seasons™** is formulated to minimize potential environmental pollutants (no Heavy Metals, no chlorinated additives, no solvents).

Product Features and Benefits

Formulated to address environmental concerns – in addition to reducing consumption, D-A **Open Gear All Seasons™** contains no chlorinated components, and is free of solvents, lead, antimony, and barium.

Formulated to form a tough durable film which separates the mating surfaces, reducing friction and wear, and providing maximum protection to the components it lubricates, which leads to reduction in consumption and the mining equipment lasting longer.

Formulated to provide excellent water resistance (rain or sleet) and resists peeling off in dry and dusty conditions which leads to less contamination into the environment.

The film does not build-up in the roots of the gears which leads to less down time.

Formulated to provide excellent resistant to rust and corrosion which leads to extended component life.

Typical Applications

D-A **Open Gear All Seasons™** can be applied to heavily loaded open gears such as those found in mining equipment (draglines, shovels) and in industrial equipment (Kilns, grinding mills, ship loaders, crane slew ring and pinion, etc.).

Open Gear Sets

Fifth Wheels

Mills

Lift Truck Masts

Telescoping Booms and Outriggers

Shaker Screens

Conveyors

Asphalt Plants

Cement Plants

Sand and Gravel Plants

Typical Properties

| | | |
|------------------------------|------------|----------------------------|
| NLGI Grade | ASTM D217 | #1 |
| Thickener Type | ASTM D128 | Lithium 12-Hydroxystearate |
| Color | Visual | Black |
| Worked Penetration @ 77° F | ASTM D217 | 325 |
| Base Viscosity @ 40° C | ASTM D445 | 5762 |
| Viscosity Index | ASTM D2270 | 122 |
| Flash Point, °F | ASTM D92 | >400 |
| Four Ball EP, Weld Load kgf | ASTM D2596 | 800+ |
| Four Ball EP, LWI | ASTM D2596 | 155 |
| Four Ball Wear, scar dia. mm | ASTM D2266 | 0.65 |
| Water Wash-Out, % Loss | ASTM D1264 | <2 |
| Water Spray-Off, % Loss | ASTM D4049 | <6 |
| Copper Corrosion Test | ASTM D4048 | 1b |
| Bearing Rust Test | ASTM D1743 | Pass |
| Mobility @ 60°F (g/min) | | 100.8 |
| Molybdenum Disulfide, wt. % | ASTM D128 | 2.0 |

D-A Part Number:

Pail (Metal) – 35 lb

12049