

ARCHOIL AR8100

BIOSYN SYNTHETIC BIODEGRADABLE GREASE

- NANOBORATE LUBRICATION TECHNOLOGY



AR8100 has been developed as an alternative to Archoil's AR8200 general-purpose nanoborate grease. It can be used in many of the same industries and applications as AR8200 but has been formulated to incorporate PAO Durasyn 148 as a base oil that makes it more suitable for marine applications due to its more favourable environmental profile in aquatic conditions.

AR8100 High Performance Grease, with nanoborate, is designed for high pressure and temperature applications. It is formulated to provide outstanding lubricity (surface friction coefficient measured at 0.037), anti-wear (AW), extreme pressure (EP) and corrosion protection within challenging lubrication environments.

AR8100 incorporates nanoborate particles in a naturally occurring fatty acid ester matrix carrier. The esters facilitate the migration of the nanoborate particles to component surfaces where they form a solid boundary lubricant film. This nanoborate coating provides protection that exceeds traditional AW additives such as zinc, phosphorous and chlorinated paraffin. The product also provides superior protection to traditional EP additive packages found in speciality greases such as moly or graphite.

AR8100 is shear stable. There is no loss of thickening power over 100,000 cycles in a grease working test. This offers long re-greasing intervals in high-speed bearings.

AR8100 offers a high dropping point. It can be used in many high-temperature applications. The product's high polymer content results in an exceptional water washout of 0.05 and water spray-off protection.

AR8100 is made with a superior quality PAO IV oil and a fumed silica thickener which are well suited for marine environments.

FEATURES / BENEFITS:

- 🔥 Nanoborate lubrication technology
- 🔥 Low friction surface coefficient of 0.037
- 🔥 High load bearing protection up to 4,000lbs
- 🔥 Excellent corrosion protection in marine environments
- 🔥 Shear stability over thousands of cycles
- 🔥 High dropping point (>550°F)
- 🔥 Freezing point (-105°F)
- 🔥 Superior to moly, graphite or PTFE
- 🔥 Compatible with water
- 🔥 Biodegradable & non-toxic
- 🔥 Low water washout of 0.5%

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TYPICAL PROPERTIES:

| | |
|--|----------------|
| NLGI Grade | 2 |
| Thickener Type | Fumed Silica |
| Texture..... | Slightly Tacky |
| Colour | Off white |
| Worked Penetration, ASTM D 217, 60 strokes | 265-295 |
| Dropping Point, ASTM D 2265, °F (°C) | >550 |
| 4-Ball EP test, ASTM D 2596 Weld point, kgf, min | 200 |
| Water washout @175F ASTM D1264 | 0.50% |

Base Fluid Characteristics

| | |
|------------------------------|-----|
| Viscosity @ 40°C, cSt | 49 |
| Viscosity @ 100°C, cSt | 7.8 |
| Viscosity @ 100°F, SUS | 52 |
| Viscosity @ 200°F, SUS | 225 |
| Viscosity Index..... | 147 |

APPLICATIONS:

Can be used in many industries including marine, cars, trucks, railroad, heavy equipment and industrial.

Applications include 'O' rings, gaskets, bearings, gears, valves, universal joints, electric motor bearings, fifth wheels, wheel bearings, pump bearings, industrial gearboxes, wire rope, threads, etc.

PACKAGING:

- 400gm Tube
- 35lb Pail
- 400lb Drum