



Previous Name: Shell Alvania Grease CG

Shell Gadus S2 High Speed Coupling Grease

- High Speed
- Reliable Protection
- Lithium

High Performance Gear Coupling Grease

Shell Gadus S2 High Speed Coupling Grease is specially formulated with a lithium soap/polymer thickener, which has superior resistance to oil separation when subjected to the high centrifugal forces normally found in couplings.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- Resistance to centrifugal separation.
- Extended relubrication frequency.
- High load carrying capabilities.
- Resistance to water washing.
- Staying in place under high speeds.
- Corrosion and rust protection.
- Minimizing of coupling wear.
- Reduction in down time and maintenance costs.
- Minimizing of coupling freeze-up.
- Use at temperatures up to 325°F
- One grease for all grease coupling types.
- Shell Gadus S2 High Speed Coupling Grease has a consistency which overlaps the NLGI grades 0 and 1. This grease is specially formulated with a lithium/polymer thickener and fortified with corrosion, oxidation, extreme pressure and an effective rust inhibitor additive package.
- Its high viscosity base oil and tackifier combine to keep the grease in place and prevent separation. In the ASTM D 4425, High Speed Centrifugal Test, which develops G forces in excess of 36,000 at 15,000 rpm. Shell Gadus S2 High Speed Coupling Grease exhibits little or no oil separation.
- Based on ASTM D 1478 and D 4693 torque tests, the minimum recommended bearing lubrication service would be -10°F. For coupling service the minimum usable temperature is not dependent upon ease of pumping or bearing breakaway force. Field service confirms problem-free coupling service at -20°F and below. Actual minimum temperature for coupling service would be below -20°F.

Main Applications



- Shell Gadus S2 High Speed Coupling Grease is recommended for all types of grease lubricated couplings used in industrial equipment. Common grease lubricated couplings include:
- Geared Couplings which have internal and external spur gears that mesh within a common rotating hub connecting the shafts.
- Steel Grid Couplings which have a convoluted band of flexible spring steel physically linking the hubs together.
- Flexible Chain Couplings which have a roller chain that meshes with a sprocket cut in each mating hub.
- Advanced technology has enabled Shell Gadus S2 High Speed Coupling Grease to perform beyond the normal 6 month change interval. In actual field experience this grease has shown its ability to perform satisfactorily beyond 3 years. This product should be used in all grease couplings, especially in those hard to service or those operating under severe conditions.
- Because of its high base oil viscosity, Shell Gadus S2 High Speed Coupling Grease is also suitable for use in other industrial applications where the equipment is subject to high water wash, low speeds and heavy or shock loads.

Specifications, Approvals & Recommendations

- AGMA CG-1 type
- AGMA CG-2 type
- AGMA CG-3 type

Shell recommends Shell Gadus S2 High Speed Coupling Grease in all types of grease couplings including the following:

- Browning

- Falk
- Koppers
- Fast
- TB Woods

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk, or the OEM Approvals website.

Typical Physical Characteristics

| Properties | | | Method | Shell Gadus S2 High Speed Coupling Grease |
|--|--------|------------|---------|---|
| NLGI Grade | | | | 0/1 |
| Appearance | | | | Dark Brown/Tacky |
| Lithium Soap / Polymer | | wt % | | 10 |
| Viscosity (1) | @40°C | cSt | D 445 | >3200 |
| Viscosity (1) | @100°C | cSt | D 445 | >50 |
| Penetration, dmm Worked, 60X | | | D 217 | 350 |
| Penetration, dmm Worked, 10,000X, % Change | | | D 217 | 10 |
| Dropping Point | | °F | Mettler | 320+ |
| Centrifugal Oil Separation | | vol % | D 4425 | None |
| Water Spray-off | | wt % | D 4049 | <3 |
| Rust Protection | | | D 1743 | Pass |
| Timken, OK Load | | lbs | D 2509 | 40+ |
| Four-ball EP Load Wear Index | | kgf | D 2596 | 68 |
| Four-ball EP Weld Point | | kgf | D 2596 | 400 |
| Four-Ball Wear (1 hr, 1200 rpm, 40 kgf) | @75°C | mm | D 2266 | 0.4 |
| Guide to Usable Temperature (Pumping) | | Min, °F/°C | | 20 / -6 |
| Guide to Usable Temperature (Bearings) | | Min, °F/°C | | -10 / -23 |
| Guide to Usable Temperature (Couplings) | | Min, °F/°C | | Below -20 / -29 |
| Continuous Service | | Max, °F/°C | | 250 / 120 |
| Short Exposure | | Max, °F/°C | | 325 / 160 |

(1) Nominal base oil viscosities without polymers or additives are 680 cSt @ 40°C and 26.1 cSt @ 100°C.

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

Health, Safety & Environment

• Health and Safety

Shell Gadus S2 High Speed Coupling Grease is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from <http://www.epc.shell.com/>

• Protect the Environment

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Additional Information

- **Product Maintenance**

The tacky nature of the product makes hand packing the preferred method of newly installed couplings to ensure even distribution throughout. Normal handling precautions should be observed as with any petroleum based products. Consult the coupling manufacturer's installation instructions for detailed lubricant application procedures. The following procedure outlines a popular lubrication method. Prior to assembly of gear couplings a coating of grease should be applied to gear teeth. After hand packing, the coupling should be rotated so the grease fitting reaches 4 o'clock, and the fitting/plug removed. A short length of 1/4 inch pipe can be affixed and grease pumped into the coupling until product is observed flowing out the purge opening at 10 o'clock. The pipe should then be removed and the plugs reinserted. This practice insures that the coupling is adequately lubricated. Routine relubrication can be accomplished with disassembly using this method. The grease will then be evenly distributed to all moving and sliding surfaces and the full benefits of the product will be realized. Special care needs to be taken when filling "Full Travel" type couplings so the correct amount of grease is charged.

- **Advice**

Advice on applications not covered here may be obtained from your Shell representative.