Technical Data Sheet

Formerly Known As: **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^{0}F
- One grease for all grease coupling types.
- This grease is specially formulated with a lithium/polymer thickener and fortified with corrosion, oxidation, extreme pressure and an effective rust inhibitor additive package.

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 Type CG-1
- AGMA Type CG-2
- AGMA Type CG-3

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.

Typical Physical Characteristics

Properties			Method	Shell Gadus S2 High Speed Coupling Grease
NLGI Grade				1
Appearance				Grey/Tacky
Lithium Soap / Polymer		wt %		10
Kinematic Viscosity	@40°C	cSt	ASTM D445	>3200
Kinematic Viscosity	@100°C	cSt	ASTM D445	>50
Penetration, dmm Worked, 60X			ASTM D217	310 to 340
Dropping Point		°F	Mettler	>320
Centrifugal Oil Separation		%vol	ASTM D4425	None
Water Spray-off		wt%	ASTM D4049	<10
Rust Protection			ASTM D1743	Pass
Timken, OK Load		lbs	ASTM D2509	>40
Four Ball EP Load Wear Index		kgf	ASTM D2596	60
Four Ball EP Weld Point		kgf	ASTM D2596	500
4 Ball Wear Scar		mm	ASTM D2266	0.52
Continuous Service		°F (°C)		Max 250 / 120
Short Exposure		°F (°C)		Max 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 Safety Data Sheet, which can be obtained from https://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.