



Previous Name: Shell Alvania Grease WFX 1

Shell GadusRail S2 Wheel Flange Grease 1

- Heavy Duty Protection
- Reduced Friction
- Lithium

High Performance Wheel-flange grease

Shell GadusRail S2 Wheel Flange greases are lithium soap greases fortified with a specifically formulated multipurpose additive package for use as railroad track lubricants. These greases may also find applications in construction, mining and agricultural equipment.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

• Features

Shell GadusRail S2 Wheel Flange greases are lithium soap thickened greases made with highly refined base oils, a special EP additive package and 3% molybdenum disulfide. The molybdenum disulfide acts to enhance anti-wear and load carrying properties, which are critical for the transport of railcars over the track. A highly shear stable tackifier improves grease adhesion to track surfaces and helps prevent oil bleeding. These greases also offer good resistance to the mechanical shear associated with trackside lubricator operation. Though all three greases can be used for winter and summer applications,

Shell GadusRail S2 Wheel Flange 0 is designed for maximum pumpability and ease of handling under extreme cold conditions.

Shell GadusRail S2 Wheel Flange 1 has shown to be very pumpable and to carry especially well on the track in cold weather. It is suitable for cold weather (winter) applications.

Shell GadusRail S2 Wheel Flange 2 has been designed to improve the lubricity and durability of the grease under the conditions imposed by hot weather. It is suitable for warm weather (summer) applications.

• Benefits

Enhanced wear protection of wheels and track.

Excellent heavy and shock load protection.

Excellent adherence to track even under adverse weather conditions.

Suitability for a variety of track and wheel lubricator systems.

Special formulation to reduce product loss at the

Main Applications



- The frictional forces developed by steel train wheels on the rail combined with the steering forces exerted by the rail rubbing against the wheel increases energy consumption and accelerates the wear of both wheel (tread and flange) and rail. This can be a serious problem, particularly for railway systems operating heavily loaded unit trains or those having numerous curves.
- Shell GadusRail S2 Wheel Flange greases are specially formulated to meet the pumpability, adhesion, and load carrying requirements of a track lubricant. Additionally, Shell GadusRail S2 Wheel Flange greases are formulated to perform well when used on any equipment subjected to conditions of high loads and temperature extremes and provide excellent resistance to rust and corrosion.

Specifications, Approvals & Recommendations

- Shell GadusRail S2 Wheel Flange greases are suitable for conventional railroad trackside and/or wheel/flange lubrication systems designed to handle greases, including lubricators made by KLF Lubriquip (formerly Madison-Kipp), Bijur, Portec and Moore and Steele.

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk.

application site.

Typical Physical Characteristics

Properties		Method	Shell GadusRail S2 Wheel Flange Grease 1	
NLGI Grade			1	
Appearance			Dark Grey	
Molybdenum Disulfide	wt %		3	
Base Oil Viscosity	@40°C	cSt	IP 71 / ASTM D445	168
Base Oil Viscosity	@100°C	cSt	IP 71 / ASTM D445	15.6
Penetration, Worked, 60X			IP 50 / ASTM D217	310-340
Dropping Point		°F	IP 396	350
Rust Protection			ASTM D1743	Pass
Copper Corrosion			ASTM D4048	1b
Timken, OK Load		lbs	ASTM D2509	30
Four Ball EP Load Wear Index		kgf		46
Weld Point		kgf		250
Four-Ball Wear (1 hr, 1200 rpm, 40 kgf)	@75°C	mm	ASTM D2266	0.4
Guide to Usable Temperatures		Min, °F		-30
Guide to Usable Temperatures, Continuous Service		Max, °F		250
Guide to Usable Temperatures, Short Exposure		Max, °F		350

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

Health, Safety & Environment

• Health and Safety

Shell GadusRail S2 Wheel Flange 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 authorized collection point. Do not discharge into drains, soil or water.

Additional Information

• Product Maintenance

Trackside and wheel lubricators require routine maintenance for proper long-term operation. Seals must be kept in good condition to prevent leakage and lubricator nozzles should be kept clear so that they apply the correct spray pattern.

• Advice

Product recommendations for applications and specifications not covered here may be obtained from your Shell representative.