Previous Name: **Shell Alvania Grease WFX**

Shell **GadusRail S2** *Wheel Flange Grease*

High Performance Wheel-flange grease

- ***Heavy Duty Protection***
- ***Reduced Friction***
- ***Lithium***

Product Description

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.

Application

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.

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 application site

Approvals and 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.

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.

Typical Properties of Shell GadusRail S2 Wheel Flange Greases

Test Method		0	1	2
NLGI Grade		0	1	2
Appearance		Dark Gray	Dark Gray	Dark Gray, Tacky
Molybdenum Disulfide, wt%		3.0	3.0	3.0
Base Oil Viscosity	D 445	68	168	220
@40°C, cSt	D 445	7.9	15.6	15.0
@100°C, cSt				
Penetration Worked, 60X		355-385	310-340	265-295
Dropping Point, °F	Mettler	330	350	350
Rust Protection	D 1743	Pass	Pass	Pass
Copper Corrosion	D 4048	1b	1b	1b
Timken, OK Load, lbs	D 2509	30	30	30
Four-Ball EP	D 2596			
Load Wear Index, kgf		46	46	46
Weld Point, kgf		250	250	250
Four-Ball Wear, mm	D 2266	0.4	0.4	0.4
1 hr, 75°C, 1200 rpm, 40 kgf				
Guide to Usable Temperatures				
Min, °F		-40	-30	-20
Continuous Service, Max, °F		250	250	250
Short Exposure, Max, °F		350	350	350

Health & Safety

Shell GadusRail S2 Wheel Flange Greases are unlikely to present any significant health or safety hazard when properly used in the recommended application, and good standards of industrial and personal hygiene are maintained.

For further guidance on Product Health & Safety refer to the appropriate Shell Product Safety Data Sheet.