



# Shell GadusRail S3 Wheel Flange Grease 1

- Heavy Duty Protection
- Reduced Friction
- Calcium

## High Performance Semi-Synthetic Wheel Flange Grease

Shell GadusRail S3 Wheel Flange Grease 1 is a calcium soap grease fortified with a specifically formulated multipurpose additive package for use as a railroad track lubricant. This grease may also find applications in construction, mining and agricultural equipment where low temperature mobility is required and solid additives provide enhanced performance.

### DESIGNED TO MEET CHALLENGES

#### Performance, Features & Benefits

##### • Features

GadusRail S3 Wheel Flange 1 is one of the next generation of rail curve greases from Shell. Building on the legacy all-season GadusRail S3 CR 1 and the seasonal change GadusRail S2 WF formulations, Shell formulated this product to cover operational temperature ranges from arctic (-40°C / -40°F) up to moderate (up to 30°C / 85°F). When combined with its complementary product, GadusRail S3 Wheel Flange 2, it provides the rail customer with a two grease seasonal solution that boasts a wide transition window, excellent track carry and wear protection for tangent and curved track under heavy traffic conditions (high tonnage haul rates). It is formulated with a mixture of mineral oils, synthetic constituents and performance additives that facilitate sliding contact at the wheel /rail interface, provide cold temperature mobility, track retention and carry as well as a low coefficient of friction.

##### • Benefits

Enhanced wear protection.

Excellent load carrying capacity / extreme pressure and shock loading protection.

Suitable for use in a variety of automatic lubricators.

Exhibits a tenacious, tacky film that resists environmental conditions of rain and moisture.

Formulated to minimize oil separation and accumulation in the lubricator.

Designed for optimal consumption rates and performance on the rail.

#### Main Applications



- The application of high performance wheel flange lubricants provides wear reduction and efficiency benefits. The GadusRail S3 WF products provide these benefits in combination with logistical advantages over other seasonal change and all-season solutions.
- Shell GadusRail S3 Wheel Flange Greases are specially formulated to meet the pumpability, adhesion, and load carrying requirements of a track lubricant. Additionally, Shell GadusRail S3 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 S3 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.

## Typical Physical Characteristics

Properties			Method	Shell GadusRail S3 Wheel Flange Grease 1
NLGI Grade				1
Appearance				Dark Grey
Solids		wt %		>6
Base Oil Viscosity	@40°C	cSt	IP 71 / ASTM D445	35
Penetration, Worked, 60X			IP 50 / ASTM D217	310-340
Dropping Point			IP 396	min. 257 (125)
Rust Protection			ASTM D1743	Pass
Weld Point				min. 250
Four-Ball Wear (1 hr, 1200 rpm, 40 kgf)	@75°C	mm	ASTM D2266	max. 0.6
Guide to Usable Temperatures			Min, °F (°C)	-40 (-40)
Guide to Usable Temperatures, Continuous Service			Max, °F (°C)	190 (90)

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 GadusRail S3 Wheel Flange Grease 1 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

Trackside and wheel lubricators require routine maintenance for proper long-term operation. Seals must be kept in good condition to prevent leakage.

### • Advice

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