

Long Life

ithium

Superior Performance

Formerly Known As: Shell Nerita Grease HV DB

# Shell GadusRail S4 High Speed

Advanced high speed rail axle box grease designed for extended service

# **DESIGNED TO MEET** CHALLENGES

## Performance, Features & Benefits

### · Cost savings via

Reduced grease consumption due to the excellent sealing capabilities of the grease which prevent leakage from the labyrinth. This is a result of stringent in-house quality control which produces this advanced performance lithium soap.

- Large reduction in downtime that results from the use of the
  latest in-house grease & XHVI base oil technology from
  Shell, that results in grease of unsurpassed performance
  proven for use in the latest generation of high speed trains.
- Lower maintenance costs due to the protection that comes from using an exceptional quality grease designed to meet the rigours of daily high speed service individually batch tested to ensure that extended service will be trouble free.
- Peace of mind via

Proven technology, thoroughly tested & approved by Deutsche Bahn AG and leading OEMs (Schaeffler, Timken, SKF) as suitable for extended service use in trains running at speeds over 330kph. Currently in use in the ICE (Inter City Express).

- From the confidence that comes from knowing that every batch is specially tested to guarantee that the grease will resist vibration and provide the expected length of service WITHOUT any premature breakdowns.
- The knowledge that Shell is in FULL control from Research & Development to manufacture & quality assurance in our own ISO approved plants, which have often been audited and passed by quality conscious customers.

- Availability of Shell expertise, to assist in safely developing the cost savings available from the wide range of Shell products.
- No unexpected Product Health & Safety problems, as Shell always formulates with current & future HSE legislation in mind, thus Shell GadusRail greases are free from lead & do not require labelling (vs EC requirements).
- Shell brand which guarantees professional standards & guaranteed back up whatever the lubrication problem.
- Convenience via

One supplier for all requirements, reduces time wasted on calls to numerous suppliers, simplifies way of working.

# **Main Applications**



Rail

High speed European axle box applications where extended service intervals are required to reduce maintenance costs. Axle box grease for speed above 330 km/h where a product batch approved by Deutsche Bahn AG is required.

# Specifications, Approvals & Recommendations

• DIN EN 12081:2011-01 b

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

# **Typical Physical Characteristics**

Properties	Method	Shell GadusRail S4 High Speed EUDB
NLGI Consistency		2.5
Colour		Light brown

Properties			Method	Shell GadusRail S4 High Speed EUDB
Soap type				Lithium
Base Oil (type)				Mineral
Kinematic Viscosity	@40ºC	cSt	ASTM D445	40
Kinematic Viscosity	@100ºC	cSt	ASTM D445	8
Dropping Point		°C	IP 396	>180
Cone Penetration, unworked	@25°C	0.1 mm	ASTM D217	255

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 S4 High Speed EUDB 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 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**

### • Operating Temperature Range

Shell GadusRail S4 High Speed EUDB is recommended for use over the temperature range -30°C to 130°C.

### • Advice

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