



Formerly Known As: Whitmore RailArmor®

# Shell Gadus (RailArmor)

- Long Carry Down
- Water-Resistant
- Wear Protection

## Extreme-Service Rail Curve Grease

Shell Gadus (RailArmor) is an extreme-service rail curve lubricant. The main aim of this project was to greatly increase carry distance down the track or reduce consumption where additional carry has no benefit. Extensive field service has shown that the goal has been achieved.

### DESIGNED TO MEET CHALLENGES

#### Performance, Features & Benefits

##### Features

Shell Gadus (RailArmor) raises the bar in all critical performance areas such as rail adhesion, rain resistance, wear protection and of course carry-down from the wiping bar. It doesn't spatter when hit by the wheel or form strings that contaminate the area around the wayside.

Extensive field service has shown that the goal has been achieved. One major railroad has reported that he now had grease on sections of track that had never seen grease before. Others reported that coverage could be maintained with grease volume reduced by 50% as compared to other premium rail lubricants.

Shell Gadus (RailArmor) slumps evenly in the wayside reservoir and does not cause pump cavitation. In the wayside reservoir it moves cleanly down the walls with minimal vortex effect, despite its adhesiveness and robust consistency.

##### Benefits

- RESISTS WATER - excellent rail adhesion and water resistance.
- CARRY-DOWN - carries farther than any Whitmore curve grease, or any competitive products that have come to our attention. In areas where additional carry has no benefit, consumption can be reduced by as much as 50%.
- COMPATIBLE - can be added to wayside tanks that currently contain either lithium or calcium-based greases.
- WEAR PROTECTION – high content of solid lubricants and oil-soluble anti-wear additives ensures low friction and wear.

#### Specifications, Approvals & Recommendations

For a full listing of equipment approvals and recommendations, please consult your local Shell & Whitmore Reliability Solutions Helpdesk.

#### Main Applications



Shell Gadus (RailArmor) is designed to lubricate rail curves, protecting rail and wheels from wear.

## Typical Physical Characteristics

Properties	Method	Shell Gadus (RailArmor)			
		1	1.5	2	
Grade		1	1.5	2	
Worked Penetration - 60 strokes @ 25°C	ASTM D217	310-340	290-315	265-295	
Dropping Point °F (°C)	ASTM D2265	400 (204)	400 (204)	380 (193)	
Viscosity, Base Oil @ 40°C cSt	ASTM D445	39 – 49	63 - 78	72 - 80	
		@ 100°C cSt	1 – 3	9 - 11	10.5 - 13.5
Density @ 60°F (15.5°C) lb/gal g/cc	Gardner Method	8.115	8.093	7.969	
		Specific Gravity	0.972	0.970	0.955
Four Ball Weld EP, Weld Point	kg	ASTM D2596	400	315	500
Four Ball Wear, Scar Width	mm	ASTM D2266	0.58	0.60	0.55
Usable Temperature Range °F (°C)			0 (-18) to 110 (43)	20 (-7) to 80 (27)	50 (10) to 130 (54)
Thickener			Lithium	Lithium	Lithium

These characteristics are typical of current production. Whilst future production will conform to Shell & Whitmore Reliability Solutions specification, variations in these characteristics may occur.

## Health, Safety & Environment

### Health and Safety

Shell Gadus (RailArmor) 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 authorized collection point. Do not discharge into drains, soil or water.

## Additional Information

### Advice

Advice on applications not covered here may be obtained from your Shell & Whitmore Reliability Solutions representative.