



Formerly Known As: **Whitmore Surtac® 2000**

Shell Gadus (Surtac 2000)

High Performance Open Gear Lubricant

- *Multiservice*
- *Lowers Operating Temperature*
- *High Temperature Stability*

Shell Gadus (Surtac 2000) is a “multiservice” lubricant for use on Draglines. Shell Gadus (Surtac 2000) forms a protective coating on metal without the use of asphalt, solvents or lead.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

Features

Shell Gadus (Surtac 2000) has a well-established record on some of the most highly loaded and expensive open gear applications.

Shell Gadus (Surtac 2000) contains graphite and MoS₂ (molybdenum disulfide). With the help of some specialized chemistry these solid lubricants bond with the metal surface. They form a dense gray-colored film, which minimizes metal-to-metal contact and wear. Shell Gadus (Surtac 2000) can reduce lubricant consumption by about 50% compared to asphaltic fluids.

Many slow-moving bearings and bushings can benefit from the use of Shell Gadus (Surtac 2000), allowing lubricant inventories to be reduced.

Benefits

- **LOWERS OPERATING TEMPERATURES** - extends gear life, reduces operating expenses.
- **MULTISERVICE LUBRICANT** - may be used on open gears, many bearings, bushings and some enclosed gears. Does not damage seals or packing materials used in pumping systems and injectors.
- **PUMPABILITY** - in many climates, a single grade can be used year-round. Consult Whitmore or Whitmore Distributor in selecting a suitable grade.
- **HIGH TEMPERATURE STABILITY** – the non-melt bentonite thickener ensures good performance on high-temperature gears, for example Kiln open gears.

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 (Surtac 2000) is ideal for exposed parts on mining equipment such as swing racks, house rails and rollers, wire ropes, and drum laggings. It is suitable for many heavily loaded bushings including bushings on pneumatic hammers. Can be used in large heavily loaded bearings operating at or below a speed factor of 150,000 DN.

Shell Gadus (Surtac 2000) regular grade is suitable for use on sealed pins and bushings of crawler tracks.

Typical Physical Characteristics

Properties	Method	Shell Gadus (Surtac 2000)					
		2000	2000 RD	2000 HD	2000 XD		
Grade		2000	2000 RD	2000 HD	2000 XD		
Viscosity, Base Oil	@ 40°C	cSt	ASTM D445	75 – 87	160 – 180	490 – 540	910 – 1,050
	@ 100°C	cSt		10 – 12	16.5 – 18.5	32 – 40	52.5 – 56.5
Density	@ 60°F	lb/gal	Gardner	8.270	8.320	8.430	8.500
	(15.5°C)	g/cc	Method	0.991	0.997	1.010	1.019
Flash Point Cleveland Open Cup		°F (°C)	ASTM D92	300 (149)	350 (177)	350 (177)	350 (177)
Four Ball EP, Weld Point		kg	ASTM D2596	500	500	500	500
Copper Strip Corrosion	212°F (100°C) @ 3 hrs		ASTM D4048	1B	1B	--	1B
Thickener				Inorganic	Inorganic	Inorganic	Inorganic

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 (Surtac 2000) 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.