



SHELL GADUS – HELPING TO LOWER THE TOTAL COST OF OWNERSHIP IN CEMENT PRODUCTION

WHAT TO RECOMMEND

Shell
GADUS

Grease may only be a small part of your maintenance budget, but it can improve your productivity and help to significantly decrease your maintenance costs and costs related to unplanned downtimes.



ADVANCED WEAR PROTECTION
IMPROVED RELIABILITY

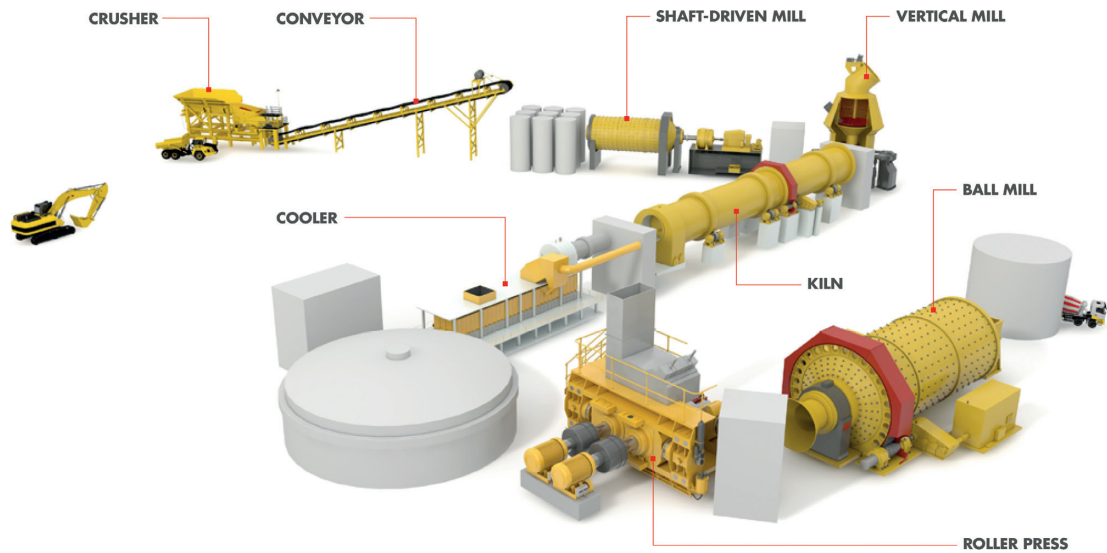


LONGER GREASE LIFE
REDUCED MAINTENANCE SPEND



DESIGNED FOR OPTIMUM EFFICIENCY AND PERFORMANCE

CEMENT PRODUCTION PROCESS



SELECTING THE RIGHT GREASE IS THE CRITICAL FIRST STEP IN IMPROVING YOUR PRODUCTIVITY AND REALIZING SIGNIFICANT TOTAL COST OF OWNERSHIP COST SAVINGS

GREASE APPLICATION

Grease Point	Equipment	Grease Recommendation
Plain and Journal Bearings	Crusher	Shell Gadus S3 V220C 2
Electric Motors, Fans, Blowers, Turbo Chargers	Crusher; Shaft Driven-, Ball-, Vertical Mill; Roller Press; Kiln; Cooler; Conveyor	Shell Gadus S5 V100 2
Open Gears	Ball Mill; Kiln; Running-In Lubricant	Shell Gadus S4 OGMS (Mill) Shell Gadus S4 OGT (Kiln) Shell Gadus S3 Repair (Running-In)
Pinion Bearings	Ball Mill; Kiln	Shell Gadus S3 V460 2
Kiln Support Bearing	Kiln	Shell Gadus S3 V460 2
Gear Couplings	Shaft Driven- and Ball Mill; Kiln	Shell Gadus S3 High Speed Coupling Grease
Rocker Arm Bearing	Vertical Mill	Shell Gadus S3 V460D 2
Separator Bearing	Separator	Shell Gadus S3 T460 1.5
Chain Roller Bearing	Kiln grate cooler	Shell Gadus S3 T460 1.5
Roller Crusher Bearings	Crusher	Shell Gadus S3 V460 2
Roller Support Bearing	Vertical Mill; Roller Press	Shell Gadus S2 V1000AD 2
High Temperature Bearing	Cooler	Shell Gadus S3 T460 1.5
Conveyor Roller Bearings	Screw Conveyor	Shell Gadus S3 T460 1.5

COMPROMISED RELIABILITY MEANS INCREASED COSTS

PRODUCT REQUIREMENTS



Mechanical Stability

Resist breakdown, softening and subsequent leakage under shock loads for less grease consumption



Oxidation Stability

No hardening or forming of deposits at high operating temperatures for increased system efficiency



Water Washout Resistance

Good adhesion properties to keep the grease where it is needed for excellent corrosion protection



Wear Protection

Protect metal surfaces and keep them apart under high loads to prolong machine life



Long Grease Life

Reduce maintenance costs, increase machine availability and reduce unplanned equipment downtime



OEM Approvals

Meeting the requirements and specifications of major OEMs

ALL SHELL GADUS GREASES ARE MANUFACTURED IN A HIGHLY CONTROLLED AND SYSTEMATIC WAY TO ENSURE THAT EVERY BATCH YOU RECEIVE GIVES YOU THE SAME HIGH PERFORMANCE LEVELS



TRUST



\$562.943*



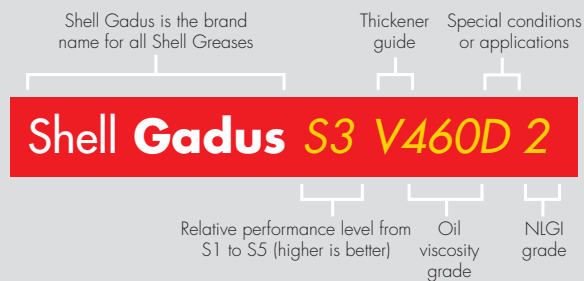
Annual cost savings reported cement producer OAO Spasskcement in Russia who switched to Shell Gadus S5 V100 2 for their turbocharger bearings. The company was experiencing a high level of bearing failures with their existing lithium-calcium grease and faced the issue of grease leaking from the bearing units.

With Shell Gadus S5 V100 2 OAO Spasskcement was able to increase the bearing life from 168 to 3500 hours and significantly reduce maintenance costs and unplanned downtime from bearing failures.

*The savings indicated are specific to the calculation date and mentioned site. These calculations may vary from site to site and from time to time, depending on, for example, the application, the operating conditions, the current products being used, the condition of the equipment and the maintenance practices.

Shell Gadus greases have names based on four key properties critical when selecting the right grease for your application:

- Thickener type
- Oil viscosity
- Operating conditions and application
- NLGI grease (consistency)



KEY LETTERS USED:

- A** = Wet (aqueous) conditions
- C** = Coloured grease
- D** = Contains solids, suitable for Shock-load conditions
- OG** = Open gear
- Q** = Noise-dampening (quiet) applications
- T** = Extreme-temperatures applications, polyurea thickener
- V** = Versatile, lithium, lithium calcium or lithium complex thicken

For more information please contact:

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SHELL LUBRICANTS
TOGETHER ANYTHING IS POSSIBLE

To find out how we can help you, go to shell.com/lubricants