



# SHELL GADUS – HELPING TO LOWER THE TOTAL COST OF OWNERSHIP IN WIND POWER

?

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**

	APPLICATION	GOOD	BETTER	BEST
 APPLICATION	Pitch & Blade Bearing	Application too demanding and risk of product failure too high to allow use of entry grade product	Shell Rhodina BBZ	Shell Gadus S5 V110KP 1
	Main Shaft Bearing		Shell Gadus S5 V460KP 1.5	
	Generator Bearing		Shell Gadus S5 V100 2	
	Yaw Bearing		Shell Gadus S5 T460 1.5	Shell Gadus S5 V460KP 1.5

## COMPROMISED RELIABILITY MEANS INCREASED COSTS

PRODUCT REQUIREMENTS

**Mechanical Stability**

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

**Wide Temperature Range**

Excellent pumpability in extreme cold & high ambient temperatures in centralized greasing systems

**Water Washout Resistance**

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

**Wear Protection**

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

**Long Grease Life**

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

**OEM Approvals**

Meeting the requirements & specifications of major OEMs

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



**Shell Rhodina BBZ**

-  ■ High Performance Grease for high demanding outdoor applications
- Calcium
-  ■ Partly Synthetic Base Oil
- Protection against fretting corrosion and false brinelling
- Wide Temperature Range
- Very good water resistance properties





**Shell Gadus S5 V100 2**

-  ■ Advanced Multi Purpose Grease
- Lithium Complex
-  ■ Synthetic Base Oil
- Extreme Pressure, Anti-Oxidation, Anti-Wear, Anti-Corrosion additives
-  ■ Special friction modifier to enable very low starting & running torques
- Wide Temperature Range
- Long Grease Life

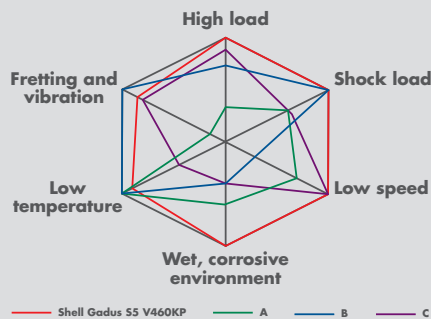
**Shell Gadus S5 V110KP 1**

-  ■ High Performance Synthetic Wind Turbine Blade Bearing Grease
- Lithium Calcium Complex
-  ■ Synthetic Base Oil
- Wide Temperature Range
-  ■ Long Grease Life
- Excellent Corrosion & Wear Protection
-  ■ Centralized Lubrication Systems

**Shell Gadus S5 V460KP 1.5**

-  ■ Advanced Synthetic Grease for Wind Turbines
- Lithium Calcium Complex
-  ■ Synthetic Base Oil
- Outstanding Wear Protection under heavy loads
-  ■ Excellent Corrosion Protection
- Long Grease Life
-  ■ Centralized Lubrication Systems

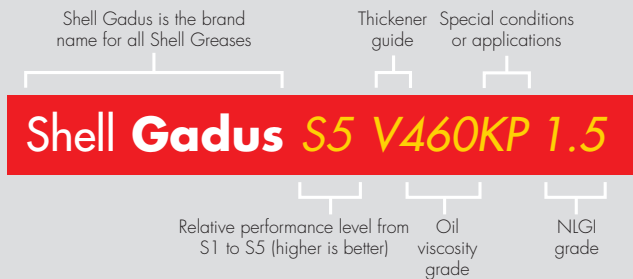
**ALL SHELL GADUS GREASES ARE MANUFACTURED IN A HIGHLY CONTROLLED & SYSTEMATIC WAY TO ENSURE THAT EVERY BATCH YOU RECEIVE GIVES YOU THE SAME HIGH PERFORMANCE LEVELS**



To confirm the outstanding performance of Shell Gadus S5 V460KP 1.5 we have tested it against the three most frequently used competitor products, referred to as A, B and C. The test focussed on the 6 most important performance areas for yaw and main shaft bearing greases and demonstrated that **Shell Gadus S5 V460KP 1.5** has the **best overall performance**. While other greases perform well in one or two performance areas, they do not match Shell Gadus S5 V460KP 1.5 for all-round performance.

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 thickener
- K** = Low Temperature
- P** = Extreme Pressure

For more information please contact:

**SHELL LUBRICANTS**  
TOGETHER ANYTHING IS POSSIBLE

To find out how we can help you, go to [shell.com/lubricants](http://shell.com/lubricants)