

APPROVED BY LEADING **MANUFACTURERS**

Shell Omala® S2 GX gear oils are approved by Siemens MD for Flender gearboxes and many other industrial gear manufacturers. The product also meets the following standards and specifications: AGMA EP 9005-F16; ISO 12925-1 Type CKD (ISO 68-460); ISO 12925 Type CKC (ISO 680 and 1000); DIN 51517-Part 3 CLP; AIST (Steel) 224 (ISO 68 to 460); China National Standard GB 5903-2011 CKD (ISO 68-460); and China National Standard GB 5903-2011 CKC (ISO 680).



WIDE SEAL, PAINT AND ADHESIVE COMPATIBILITY

Oil compatibility problems account for about 40% of seal failures.⁶ **Shell Omala® S2 GX** meets the performance limits for industry prevalent Freudenberg seals in static and dynamic testing, and is compatible with commonly used Mäder and Rickert inner paints. It also meets the performance limits for prevalent Henkel Loctite sealants and engineering adhesives.

	72 NBR 902	75 FKM 585	75 FKM 260466		
Static testing ISO 1817	Compatible 95°C, 1,008 hours	Compatible 120°C, 1,008 hours	Compatible 120°C, 1,008 hours		
Dynamic testing DIN 3761	Compatible 80°C, 768 hours 32 repetitions, 2,000 rpm Two radial shaft seals	Compatible 110°C, 1,008 hours 42 repetitions, 3,000 rpm Two radial shaft seals	Compatible 110°C, 1,008 hours 42 repetitions, 3,000 rpm Two radial shaft seals		

	P22-Mäder	M20-Mäder	EP 3152-Rickert	Sigmaweld 120
Inner paint testing	Compatible Siemens ISO 100	Compatible Siemens ISO 100	Compatible Siemens ISO 100	Compatible BUI-TEC-2009-4-003 ISO 150

	Loctite 128068	Loctite 603	Loctite 641	Loctite 243	Loctite 577
Static testing, Henkel, four weeks at 80°C plus four weeks at room temperature	Compatible ISO 100	Compatible ISO 150	Compatible ISO 150	Compatible ISO 150	Compatible ISO 150



FROM MICROPITTING RESISTANCE TO HELPING LOWER THE COST OF OWNERSHIP

**SHELL OMALA® S2 GX GEAR OIL
HELPS MAKE IT POSSIBLE**

**SHELL
LUBRICANT
SOLUTIONS**



For more information, please contact your Shell Lubricants representative.
www.shell.com/lubricants

Shell Lubricants refers to the various Shell companies engaged in the lubricants business.
¹ASTM D2893 endurance tests; ²KRI shear test at 60°C for 20 hours; viscosity loss measured at 40°C; ³ISO 14635-1 at 90°C; ⁴Micropitting (FVA No. 54/ I-IV) compared with Shell Omala S2 G;
⁵ASTM D1401 at 82°C; ⁶Freudenberg gearbox manufacturer
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ASKING MORE OF GEAR OILS

Gearboxes are becoming smaller with higher power outputs and tougher operating conditions. At the same time, equipment manufacturers and operators expect longer oil service lives. This means that less oil has to work harder for longer.

HELPING TO REDUCE TOTAL COST OF OWNERSHIP

Gearbox reliability can be compromised by

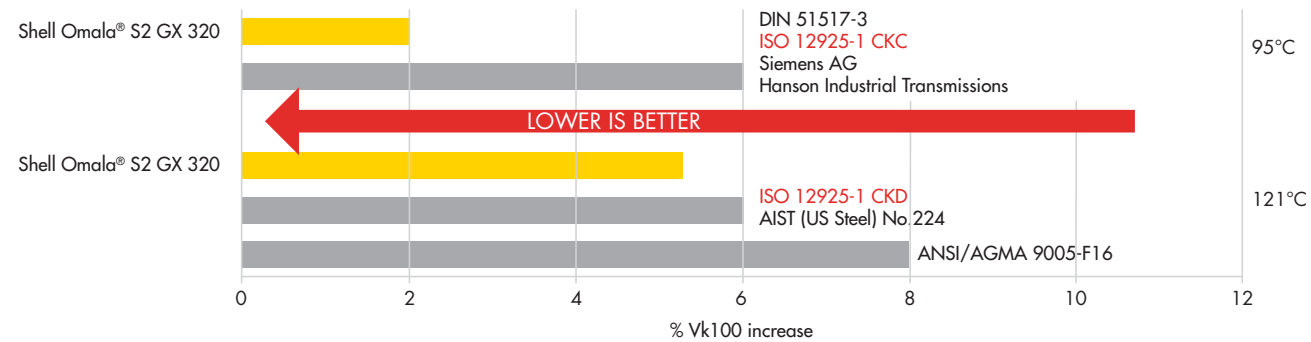
- wear, including micropitting
- bearing and seal failures
- particulate, air and water contamination.

Shell Omala® S2 GX gear oils can help to reduce the total cost of gearbox ownership. It meets or exceeds industry and key gearbox manufacturers' specifications and offers improved oxidation stability, anti-scuffing protection, micropitting resistance, water separation, foam control and seal reliability.

You can also help to reduce your total cost of ownership with technical services such as **Shell LubeMatch** and **Shell LubeCoach**.

LONG OIL LIFE – OXIDATION STABILITY

Shell Omala® S2 GX gear oils exceed industry standards and key gearbox manufacturers' requirements for oxidative stability (thickening and sludge formation) tests.¹ Better oxidative stability means longer oil life.



VISCOSITY RETENTION – SHEAR STABILITY

Loss of viscosity through mechanical shearing can be a challenge for higher viscosity oils. In tests,² **Shell Omala® S2 GX 680** had excellent shear resistance.

LONG COMPONENT LIFE

Shell Omala® S2 GX gear oils help deliver long component life through its antiwear performance, including excellent

- **anti-scuffing properties:** All viscosity grades of Shell Omala® S2 GX gear oil pass stage 13 of the FZG scuffing test³ at standard and double speeds, even the lowest viscosity oil, Shell Omala® S2 GX 68.
- **load-carrying capacity** helps provide long component life, including in arduous, low-speed and high-torque conditions
- **micropitting resistance:** delivers robust performance in micropitting tests.⁴



ENHANCED EFFICIENCY

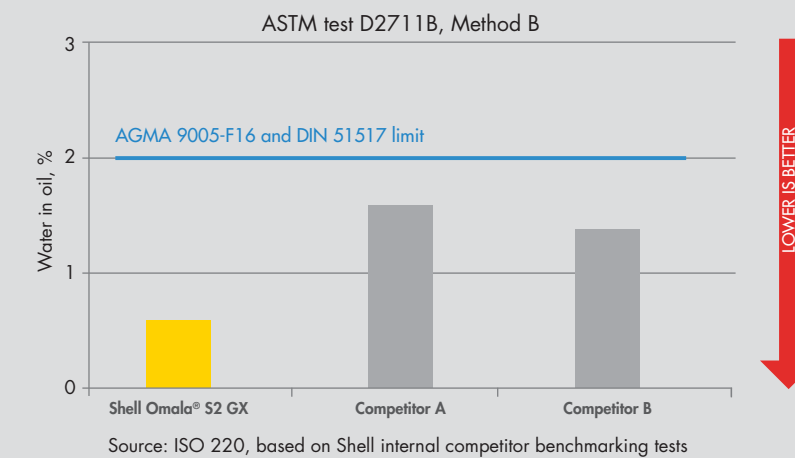
Component life and system efficiency can be compromised significantly if the oil is contaminated by particulates, air or water.

OUTSTANDING WATER SEPARATION

Where water ingress is an issue, an oil's ability to separate the water quickly is a critical requirement. **Shell Omala® S2 GX** gear oils have outstanding water separation performance,⁵ excellent air release and a low foam-forming tendency that provides robust oil films to bearings and gears.

WITHSTANDS PARTICULATE CONTAMINATION

Particulate contamination can reduce oil and component life. Cement mills can be particularly harsh operating environments. Excellent anti-foam performance is maintained even with the addition of 3% clinker dust in the ASTM D892 foam test and Flender foam test.



OUTSTANDING PERFORMANCE

To meet the technically challenging requirements of today's gearbox applications, Shell Omala® S2 GX gear oils are formulated to pass an extensive range of rigorous performance tests. It offers outstanding performance in challenging environments.

WHAT SHELL OMALA® S2 GX GEAR OIL OFFERS	DESIGNED TO	POTENTIAL BENEFITS	HELPS REDUCE TOTAL COST OF OWNERSHIP
Excellent performance when contaminated by particulates or water	Shell Omala® S2 GX gear oils are designed to go on performing even with contamination.	Less downtime to help improve productivity	
Oxidation and shear stability	Shell Omala® S2 GX gear oils are formulated to resist oxidation for long oil life and shear for viscosity retention.	Reduce blockages and oil and filter changes	
Wear protection	Shell Omala® S2 GX gear oils offer excellent micropitting performance to help prolong component life, and has a low sludge tendency.	Lower component replacement costs	
Low foaming tendency	Shell Omala® S2 GX gear oils have an excellent low foaming tendency that helps provide greater gear and bearing protection and may reduce sump overflow.	Reduce top ups and helps lead to a cleaner work environment	
Water separation	Shell Omala® S2 GX gear oils have good water separation and demulsification properties that help maintain effective lubrication and protect against corrosion.	Extends equipment life and reduces downtime	



APPLICATIONS

Suitable for a wide range of enclosed industrial gearboxes used in the general manufacturing, mining, steel, power, paper, auto components, cement industries and marine applications