Product information: Industrial gear oil

FROM WEAR PROTECTION TO TURNING THE WHEELS OF INDUSTRY

SHELL OMALA S4 GXV MAKES IT POSSIBLE

Designed to provide extra protection for extended gear life
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SHELL LUBRICANTS
TOGETHER ANYTHING IS POSSIBLE

Every part of your machine or process has been meticulously engineered, so you want to use a lubricant that has been designed to ensure that your equipment is well protected and works efficiently.

The Shell Omala range of gear oils has been developed to enable equipment operators to select the oil that will deliver optimum value to their operations through

- **wear protection**
- **long oil life**
- **system efficiency.**

IMPROVED FORMULA

Compared with its predecessor, Shell Omala S4 GX, Shell Omala S4 GXV has

- a higher viscosity index
- improved low-temperature fluidity
- a lower foaming tendency, enhanced filterability
- better seal, sealant and paint compatibility.

It retains the previous product's

- excellent copper corrosion protection
- rust inhibition
- high oxidative and thermal stabilities
- load-carrying and wear-protection performance.

Performance at a glance

	Seal and paint compatibility	Filterability	System efficiency
Shell Omala S4 GXV	✓✓✓✓	✓✓✓✓	✓✓✓✓
Shell Omala S4 GX	✓✓	✓✓	✓✓

Performance level is a relative indication only.

AN ADVANCED, SYNTHETIC INDUSTRIAL GEAR OIL

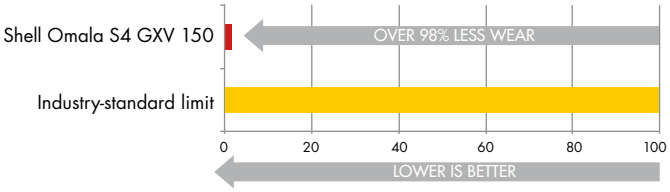
Shell Omala S4 GXV is Shell's ultimate versatile gear oil. It is a synthetic oil that has been formulated to provide extra-long life and excellent protection under high loads, including in the latest-technology long-life gearboxes that take advantage of advanced metallurgies and have new seal-compatibility requirements.

Shell Omala S4 GXV has a low friction coefficient and good low-temperature performance, which make it ideal for remote, long-life applications. It is widely recognised and approved by leading equipment manufacturers.

DESIGNED TO PROTECT

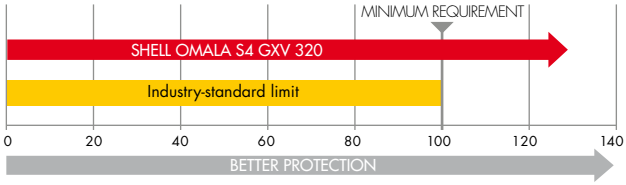
Protecting gears from damage can help to increase service life and maximise your return on investment. Shell Omala S4 GXV can help to achieve this by

- providing **over 98% less wear** than industry standard test limits



Roller wear (% of limit) (DIN FE-8 bearing wear tests) against DIN 51819-3 requirements; 80 hours, 7.5 rpm, 80 kN and 80°C

- **significantly exceeding** the minimum gear protection requirements.

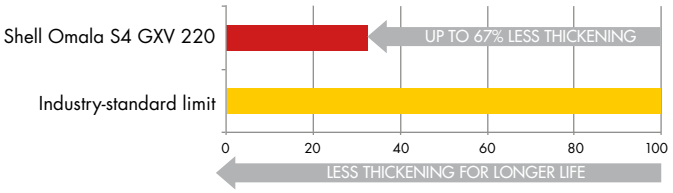


Passing load stage (% of limit) (DIN 51534 test) against DIN 51517-3 requirements

DESIGNED FOR LONG OIL LIFE

Limiting fluid degradation can help to prolong oil life. Shell Omala S4 GXV is designed to help you operate for longer without interruption for reduced maintenance requirements and enhanced productivity. In the industry-standard oil life test, Shell Omala S4 GXV achieved

- **up to 67%** less thickening than the maximum allowed after 312 hours at 121°C to ensure efficient and consistent lubrication.

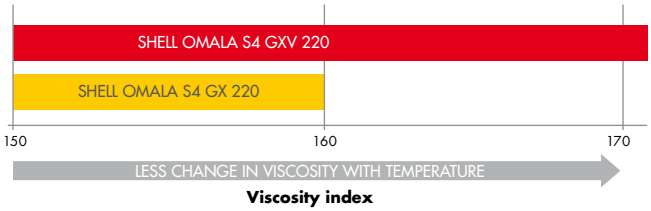


Thickening (% of limit) (ASTM D2893) against ANSI/AGMA 9005-F16 requirements

DESIGNED FOR SYSTEM EFFICIENCY

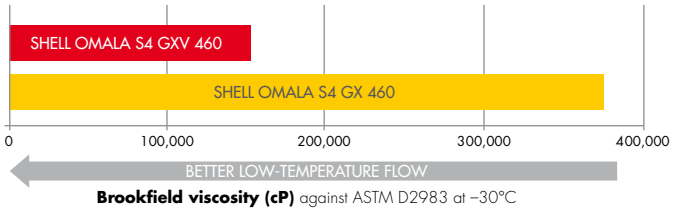
A gear oil needs to protect and lubricate efficiently. Shell Omala S4 GXV is designed to deliver effective lubrication over a broad temperature range by providing good oil flow at low temperatures while retaining the ability to operate at bulk temperatures up to 120°C. Shell Omala S4 GXV

- **retains its optimum viscosity better** with temperature changes compared with the product it replaces to provide optimal viscosity over a wider operating temperature range and improved protection under low temperature start-ups.



Viscosity index

- **offers improved low-temperature flow** compared with the product it replaces.



Brookfield viscosity (cP) against ASTM D2983 at –30°C

SPECIFICATIONS AND APPROVALS

Shell Omala S4 GXV is available in viscosity grades 68 and 150–1000. All grades meets the requirements of

- ANSI/AGMA 9005-F16 (EP)
- ISO 12925-1 Type CKD
- DIN 51517 Part 3 (CLP)
- China National Standard GB-5903-2011 L-CKD
- AIST (US Steel) 224.

Viscosity grades 150–680 cSt are approved by Siemens for Flender gearboxes and gear units for helical, bevel and planetary gear units. Other manufacturers' approvals are pending.

APPLICATIONS

Suitable for use in a wide range of enclosed industrial gearboxes, primarily those under high load where enhanced micropitting protection is required

Systems requiring high levels of reliability – particularly recommended for remote installations, where maintenance is infrequent and access can be difficult

Extended life operations – for long-life applications, especially where extreme temperatures or pressures may be encountered

SEAL AND PAINT COMPATIBILITY

Equipment manufacturers are moving towards lubricant specifications that take a holistic approach to system efficiency, which includes seal and paint compatibility. Shell Omala S4 GXV

- **meets all the performance limits for common Freudenberg seals** in static (ISO 1817) and dynamic testing (DIN 3761)
- **is compatible with commonly used Mäder and Rickert inner paints**.

SEAL COMPATIBILITY			
	72 NBR 902	75 FKM 585	75 FKM 260466
Static testing	**Compatible** 95°C, 1,008 h	**Compatible** 120°C, 1,008 h	**Compatible** 120°C, 1,008 h
Dynamic testing	**Compatible** 80°C, 768 h, 32 repetitions, 2,000 rpm, two radial shaft seals	**Compatible** 110°C, 1,008 h, 42 repetitions, 3,000 rpm, two radial shaft seals	**Compatible** 110°C, 1,008 h, 42 repetitions, 3,000 rpm, two radial shaft seals

PAINT COMPATIBILITY			
	P22-Mäder	M20-Mäder	EP 3152-Rickert
Inner paint testing	**Compatible** Siemens Method, Rev 1	**Compatible** Siemens Method, Rev 1	**Compatible** Siemens Method, Rev 1