

# Shell Water-glycol S2 C

High-performance Water-glycol hydraulic fluid

**SHELL  
LUBRICANT SOLUTIONS**



## DESCRIPTION

**Shell Water-glycol S2 C**, formerly FR WG, is a fire-resistant hydraulic fluid and is recognized by FM Global as a less-flammable industrial fluid.

Shell Water-glycol S2 C was developed and designed specifically to operate at system pressures of 2,000–4,000 psi. It contains sufficient water to prevent the propagation of fire in the event of a hydraulic line rupture near an ignition source, which makes it suitable for applications such as die casting equipment, welding machines, molten metal handling devices, continuous casters, hot strip mills, slag granulators and hot metal presses. Recognized by FM Global as a less-flammable industrial fluid, Shell Water-glycol S2 C reduces the fire hazards relating to personal safety in storage, handling and use, which could help to lower insurance premiums.

A high level of antiwear protection is built into Shell Water-glycol S2 C. It is designed to be resistant to mechanical shear, so it has a stable viscosity that helps to protect components against wear. In addition, it provides corrosion protection to a wide variety of metals, including aluminum, copper, brass, cast iron, steel and others commonly used in hydraulic circuits.

Shell Water-glycol S2 C 32 can be used in systems that contain a wide variety of seal, gasket and hose materials. Elastomers such as natural rubber, Buna-N, Buna-S and neoprene are compatible with the fluid. Other materials such as Viton and Teflon are also compatible.



## SPECIFICATIONS, APPROVALS AND RECOMMENDATIONS

Shell Water-glycol S2 C is recognized by FM Global as a less-flammable industrial fluid.

For a full listing of equipment approvals and recommendations, please consult your local Shell Lubricant Solutions technical help desk.

Previous name	Product
FR WG 150-D	Shell Water-glycol S2 C 32
FR WG 200-D	Shell Water-glycol S2 C 46
FR WG 300-D	Shell Water-glycol S2 C 68



## TYPICAL PHYSICAL CHARACTERISTICS

PROPERTIES				
	Method	Shell Water-glycol S2 C 32	Shell Water-glycol S2 C 46	Shell Water-glycol S2 C 68
ISO viscosity grade	ISO 3448	32	46	68
Kinematic viscosity at 0 °C, mm <sup>2</sup> /s	ASTM D445	200.9	287.1	488.5
Kinematic viscosity at 40 °C, mm <sup>2</sup> /s	ASTM D445	32.0	46.0	68.0
Kinematic viscosity at 80 °C, mm <sup>2</sup> /s	ASTM D445	10.7	14.7	23.7
Viscosity index	ASTM D2270	>197	202	>200
Specific gravity at 15 °C, g/cm <sup>3</sup>	ASTM D1298	1.08	1.08	1.08
Pour point, °C	ASTM D97	-45	-48	-39
Vane pump testing, total wear, ring and vane (100 h), mg	ASTM D2882	<100	<50	-
pH at 15 °C	ASTM E70	9.5	9.5	9.5
Reserve alkalinity, mL	ASTM D1121	18.0–22.0	18.0–22.0	18.0–22.0

These characteristics are typical of current production. Although future production will conform to Shell's specifications, variations in these characteristics may occur.

## CONTACT US

For more information, please contact your Shell Lubricant Solutions representative or visit [shell.us/ecosafe](https://shell.us/ecosafe).

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