Shell **Mysella** ***S5 S 40***

Technical Data Sheet

- *Extended Oil Life*
- *Extra Protection against Sour Gas*

Long Life, Low Ash Gas Engine Oil

Shell Mysella S5 S is a premium gas engine oil, formulated for use in engines burning non-natural "sour" gas, such as biogas, sewage gas and landfill gas.
Shell Mysella S5 S has been specially developed to provide extended oil drain intervals in engines running on sour gas. Shell Mysella S5 S uses a formulation which has been optimised to resist the corrosive and oxidative effects of sulphuric and halogenic acids which are often present in sour gases. Thanks to its low ash content, Shell Mysella S5 S minimizes the contribution of the lubricating oil to combustion chamber deposits.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Extended oil life**

  Thanks to its good resistance to oxidation and nitration, and the strong base additives in its formulation, Shell Mysella S5 S will provide an extended oil life in comparison to standard gas engine oils.

  Note that oil life will be dependent on the level of contaminants in the gas.

- **Engine protection**

  Shell Mysella S5 S has good anti-wear properties and offers superior control of oil related deposits. Qualified as a low ash oil, the contribution of oil ash to combustion chamber deposits will be minimized.

  Shell Mysella S5 S is compatible with engines equipped with exhaust emission catalysts for CO, NOx and formaldehyde.

- **System efficiency**

  In engines utilising crank case gas recirculation Shell Mysella S5 S is expected to reduce fouling and clogging of charge air coolers.

Main Applications

- **Gas Engines**

  All types of 4-stroke gas engines burning biogas, sewage gas or landfill gas.

Specifications, Approvals & Recommendations

Shell Mysella S5 S is suitable in engine types where a "low ash" oil is required.

- Caterpillar Stationary Gas Engines
- GE Jenbacher: Series 2, 3 Fuel Class B and CCAT.
- MAN B&W Diesel: Gas engines (Natural Gas, Landfill Gas/Digester gas/Biogas). Dual Fuel (Pilot Diesel)
- MAN: 3271-4
- MDE: Naturally Aspirated 28xx, 30 xx (D/M), Turbocharged 28xx 30xx (T/L/Z)
- MHI: Mitsubishi Gas Engines
- Rolls Royce: KG-1, KG-2, KG-3 (Bio Gas Operation)
- Waukesha: Cogen Application (Pipeline Quality Natural Gas)
- Wartsila: CR26

Shell Lubricants are currently working with engine manufacturers on the approval process of Shell Mysella S5 :

Shell Mysella S5 S meets the requirments of and can be freely use in:

For engines under warranty, Shell advises to contact the engine manufacturer and Shell representative before using the oil.

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Help Desk, or the OEM Approvals website.

Typical Physical Characteristics

Properties			Method	Shell Mysella S5 S 40
SAE Viscosity Grade				40
Kinematic Viscosity	@40°C	mm^2/s	ASTM D445	135
Kinematic Viscosity	@100°C	mm^2/s	ASTM D445	13.5
Density	@15°C	kg/m^3	ASTM D4052	890
Flash Point, closed cup		°C	ASTM D93A	230
Pour Point		°C	ISO 3016	-18
BN		mg KOH/g	ASTM D2896	5.3
Sulphated Ash		%wt	ISO 3987	0.57
Phosphorus		ppm	ASTM D4047	300

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

Health, Safety & Environment

- **Health and Safety**

  Shell Mysella S5 S is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of industrial and personal hygiene are maintained.

  Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

  Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

- **Protect the Environment**

  Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Additional Information

- **Oil Analysis**

  For optimum results regular oil analysis is strongly recommended

- **Advice**

  Advice on applications not covered here may be obtained from your Shell representative.

  Note: this product is not designed for automotive gas engines.