Technical Data Sheet

Shell **Mysella** *S5 S 40*

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

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 biogas, sewage gas and landfill gases. 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 these 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 for engines where a "low ash oil" is required.

Shell Mysella S5 S is approved by

- GE Jenbacher: Series 2, 3, Series 4 (Version B) and Series 6 (Version E) for Fuel Class B and C.

  In addition, Shell Mysella S5 S successfully conforms to the strict requirements of GE-Jenbacher's test for their modern high power density Series 6(F) and Series 4(C) engines.

- MAN T&B M-3271-2 (Natural gas) & M-3271-4 (Special gas)
- MTU Series 400: Biogas, Landfill gas and Sewage gas
- MWM gas engines: TR2105
- 2G agenitor series 2, 3 and 4
- Tedom: Biogas, Landfill gas, Sewage gas
- Caterpillar CG132, CG170, CG260 – TR 2105

  Shell Mysella S5 S meets all requirements of the CAT-specification and has been successfully field tested.
  It can be used freely in Caterpillar stationary gas engines for bio gas and sour gas application. Shell Mysella S5 S also meets the requirements of Waukesha engines.

  For engines under warranty, Shell advises contact with the engine manufacturer and Shell representative to choose the appropriate oil given the equipment operating conditions and customer maintenance practices.

  For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk.

Typical Physical Characteristics

Properties			Method	Shell Mysella S5 S 40
Kinematic Viscosity	@40°C	mm^2/s	ASTM D445	125
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Density	@15°C	kg/m^3	ASTM D4052	890
Flash Point, Cleveland Open cup		°C	ASTM D92	268
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 Safety Data Sheet, which can be obtained from http://www.epc.shell.com

- **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.