



Formerly Known As: Shell Mysella R

Shell Mysella S3 Z 40

High performance very low ash gas engine oil

Shell Mysella S3 Z is a high performance gas engine oil designed for use in natural gas engines which require an ash-less or very low ash product. Using very low ash technology Shell Mysella S3 Z minimizes carbon and ash deposits on pistons, in ring belt areas, exhaust and intake ports, valve stems and in combustion chambers.

Shell Mysella S3 Z is ideal for operators who have both two stroke and four stroke engines and who are looking to use a single engine lubricant.

- *Reliable Protection*
- *Very Low Ash Content for Two & Four Stroke Engines*

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Extended oil life**

Shell Mysella S3 Z is highly resistant to nitration and oxidation, which can cause filter deposits, viscosity increase and acid build-up.

- **Engine protection**

The very low ash formulation of Shell Mysella S3 Z enables potentially longer spark plug life resulting in increased time between replacements. In addition, the excellent Anti-Scuff / Anti-Wear Protection protects and minimizes scuffing during the running-in (break-in) period including high BMEP engines.

- **Engine efficiency**

Shell Mysella S3 Z combines a low tendency to form carbon with a strong detergency system, to avoid port plugging in 2-stroke (2-cycle) engines which essentially eliminates the need to clean cylinder ports between overhauls. The "very low ash" formulation enables spark plugs to remain almost "as new", with their lifetime limited only by spark gap erosion. It also virtually eliminates detonation and pre-ignition, due to the absence of deposit "hot spots".

Main Applications



Recommended for mixed fleet engine operations

Two and four stroke spark-ignited engines fueled by natural gas and low pressure natural gas, used in:

- Gas transmission

- Electric power generation
- Irrigation pumping service

Specifications, Approvals & Recommendations

Shell Mysella S3 Z is suitable for medium to high BMEP engine types where an ash-less oil is required. These include "American Heritage" engines such as the following:

Suitable for use in engines manufactured by

- Allis-Chalmers
- Ajax
- Caterpillar (except 3400, 3500, 3600)
- Clark
- Climax
- Colt-Fairbanks Morse
- Cooper-Bessemer (2-cycle)
- Dresser-Rand (Category I & II)
- Dresser-Rand (Category III)
- International-Harvester
- Waukesha
- Minneapolis-Moline
- White Superior (naturally aspirated)
- Worthington

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 Help Desk.

- Gas gathering / storage
- Gas processing and petrochemical plants

Typical Physical Characteristics

Properties			Method	Shell Mysella S3 Z 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	899
Flash Point, closed cup		°C	ASTM D93A	230
Pour Point		°C	ISO 3016	-18
BN		mg KOH/g	ASTM D2896	2
Sulphated Ash		%wt	ISO 3987	0.13
Phosphorus		ppm	ASTM D4047	600
Calcium		ppm	ASTM D4927	300
Zinc		ppm	ASTM D4927	75

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 S3 Z 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