



Product Information:  
**SOVEREIGN 460, 680, 1000**  
**STRAIGHT STEAM CYLINDER OILS**

**Description**

Sovereign Straight Steam Cylinder Oils are refined to give film strength at very high temperatures, providing excellent lubrication where needed to protect bores and valves. These grades are non-compounded, have superior resistance to oxidation and have low deposit forming characteristics under extreme conditions of temperature and pressure. They also possess strong demulsification characteristics and therefore separate quickly and cleanly from water.

**Features**

- Non-Compounded
- Non-Staining
- Safe on paintwork and brasses
- Low deposit forming characteristics
- Excellent oxidation resistance
- Excellent water separability

**Applications**

The Sovereign range is recommended for all steam engines utilising wet or dry steam, and as a boiler or process feed in preference over compounded products where the steam is being recovered.

Sovereign 460 has exceptional water separability properties and this grade is recommended in lightly loaded engines when steam condensation needs to be recovered.

In engines where high temperature superheated steam over 550°F (288°C) is used, the more viscous Sovereign 1000 oil is recommended.

**Performance Levels**

Sovereign Steam Cylinder Oils meet the requirements of British Rail, for locomotives running on their lines, schedule number MT276.

**Physical Characteristics**

Grade	460	680	1000
Appearance	Dark Amber Liquid		
Relative Density @ 15.6°C	0.905	0.915	0.925
Kinematic Viscosity @ 40°C (cSt)	457.4	684.3	974.9
Kinematic Viscosity @ 100°C (cSt)	30.4	36.8	43.9
Viscosity Index	96	90	84
Closed Flash Point (°C)	245	250	260
Pour Point (°C)	-10	-7	-6

Figures based on average production values.

Part No.S: 460: SGN025, SGN205  
 680: SGS025, SGS205  
 1000: SGT025, SGT205

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