



Fomblin® PFPE for Oxygen Service

The continual development of chemical and metallurgical processes along with satellite communication and the electronics industries have led to the use of pure oxygen and other highly reactive chemicals. The difficulty of finding a lubricant perfectly compatible with oxygen, and other chemicals, has led to developing new technological solutions. Oxygen producers and users in chemical and metallurgical industries have been using Fomblin® PFPE for years with excellent technical and economic results as well as a substantial improvement in safety conditions. These benefits are spreading to a wider range of applications where safety, compatibility and stability of the lubricant allow researchers to focus on other problems.

Fomblin® LC grade is a special fluid for oxygen handling and lubrication of oxygen pumps and compressors. One grade of Fomblin® LC is currently available. However the flexibility of Solvay Specialty Polymers' production process enables us to supply custom-made grades to suit specific requirements.

Fomblin® LC perfluoropolyether fluids has the following unique features:

- Excellent wear characteristics
- Very good low temperature properties
- Cost effective
- Outstanding for applications requiring low viscosity

Fomblin® LC 200

Properties	Typical Value	Unit	Test Method
Kinematic viscosity			ASTM D445
at 20 °C	190.0	cSt	
at 40 °C	65.6	cSt	
at 100 °C	9.4	cSt	
Viscosity index	122		ASTM D2270
Density at 20 °C	1.89	g/cm ³	ASTM D891
Weight loss			ASTM 2595
at 60 °C	1.7	%	
at 120 °C	17	%	
Pour point	-40	°C	ASTM D97
Flash point	none	°C	

Fomblin® Y-LOX 120 for liquid compressor and vacuum applications

Fomblin® Y-LOX 120 perfluoropolyether is a high performance lubricant designed specifically for liquid compressor and vacuum applications. The characteristics of Y-LOX 120 include outstanding chemical stability, thermal stability and lubrication properties.

These characteristics make Fomblin® Y-LOX 120 especially suitable as a base oil lubricant for high performance mechanical lubrication applications in harsh environmental conditions.

Properties	Typical Value	Unit	Test Method
Kinematic viscosity			ASTM D445
at 20 °C	120	cSt	
at 40 °C	42	cSt	
at 100 °C	6.8	cSt	
Viscosity index	120		ASTM D2270
Pour point	-46	°C	ASTM D97
Surface tension at 20 °C	21	dyne/cm	
Vapor pressure			
at 20 °C	2·10 ⁻⁴	torr	
at 100 °C	5·10 ⁻²	torr	
Specific gravity at 20 °C	1.89	°C	
Weight loss at 120 °C, 22 h	< 10	%	ASTM 2595
Appearance	clear and colorless		

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