

# Fomblin Y

## HVAC Diffusion Pump Oil

### Description

Fomblin Y HVAC fluids have been specially developed in order to combine narrow molecular weight range and controlled viscosity with an extremely low vapour pressure. Thus they provide superior performance in high vacuum applications especially systems exposed to aggressive gasses.



**Kurt J. Lesker**<sup>®</sup>  
Company

**VACUUM MART**<sup>™</sup>  
DIVISION

### Applications

- Scanning electron microscopes
- Mass spectrometers
- Particle accelerators
- Ion implantation
- PVD processes
- Pumps handling reactive gases (UFL, Fz, Oz, Ozone, Can't read the next word)

### Features

- Low Vapor Pressure - minimizes backstreaming
- Chemically inert - resists crystallization
- High thermal stability
- No Flash Point
- Low Toxicity
- Excellent compatibility with metals, plastics, elastomers
- Good radiation stability
- Environmentally acceptable
- Recyclable
- Non-flammable
- Resistant to oxidation

### Why buy from KJLC?

- Exclusive North American Distributor
- Exclusive European Distributor
- Stock in Pittsburgh, PA; Livermore, CA; Hastings, UK

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## Applications

## HVAC Grade

18/8    25/9    40/11    140/13

Diffusion Pumps – Working Fluid

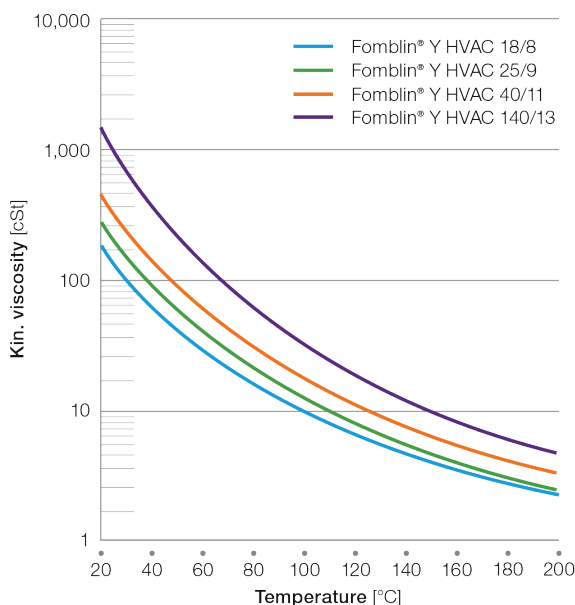
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## Typical Properties

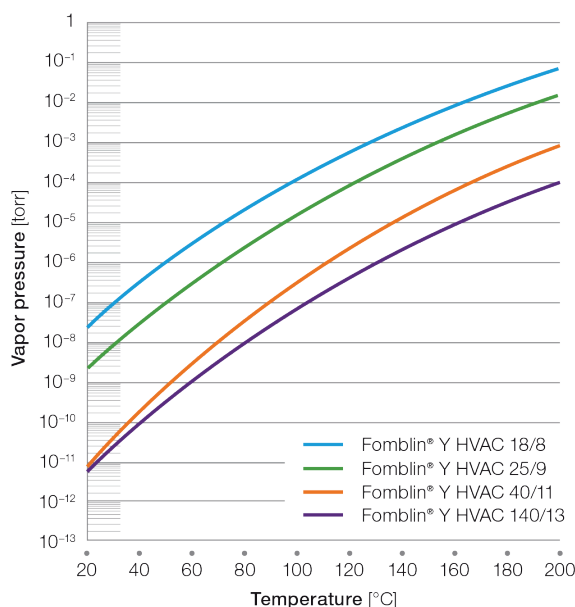
### Fomblin® Y HVAC Grades

Typical Property	Units	18/8	25/9	40/11	140/13
Average Molecular Weight	amu	2800	3400	4100	6600
Density (20°C) (68°F)	g/cm <sup>3</sup>	1.89	1.90	1.91	1.91
Kinematic Viscosity at (20°C) (68°F)	cSt	190	285	474	1508
at (100°C) (212°F)	cSt	9	12	17	32
at (200°C) (392°F)	cSt	2	2.6	3	5
Refractive Index (20°C) (68°F)	n <sub>20</sub> D	71	97	110	113
Pour Point	°C	-42	-35	-32	-23
	°F	-43.6	-31	-25.6	-9.4
Heat of Vaporization (200°C) (392°F)	cal/g	9	7	7	5
Specific Heat at 38°C (100°F)	cal/g	20	20	20	20
Surface Tension at 25°C (77°F)	dyne/cm	9	7	7	5

**Fomblin® Y HVAC**  
Kinematic viscosity vs. temperature



**Fomblin® Y HVAC**  
Vapor pressure vs. temperature



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## Typical Properties

In most cases Fomblin PFPE can be used in diffusion pumps without any modification to the pump.

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