

# Gemini<sup>®</sup> PFPE Compressor Oils KC / YC Series

## Introduction:

KC/YC Series are Perfluoropolyether fluids for compressor and vacuum pump in harsh conditions facing oxygen and reactive chemicals like halogen, sulfuric anhydride etc. They are stable in ultra low temperature, nontoxic, nonflammable, biologically inert, compatible with metals, plastics and elastomers, unaffected by common solvent and water, low viscosity, low surface tension, resistance to chemicals, high safety in operation.

## Typical Properties:

	Method		Units	KC-08	KC-55	KC-80	KC-200	KC-250
Average Molecular Weight	NMR		amu	800	1700	2000	2900	3200
Vapor Pressure	Knudsen	20°C	torr	$5 \times 10^{-3}$	$2 \times 10^{-4}$	$2 \times 10^{-4}$	$2 \times 10^{-4}$	$6 \times 10^{-5}$
		100°C		$5 \times 10^{-1}$	$5 \times 10^{-2}$	$5 \times 10^{-2}$	$5 \times 10^{-2}$	$6 \times 10^{-3}$
Kinematic Viscosity	ASTM D445	20°C		8	83	80	190	250
		40°C		3.2	21.7	29.5	65.5	89
		100°C		0.75	4.2	5.4	9.4	12
Pour Point	ASTM D97		°C	-70	-56	-49	-40	-35
Surface Tension	ASTM D1331	20°C	dyne/cm	19	21	21	22	22
Four Ball Wear	ASTM D4172	75°C	mm	0.6	0.6	0.6	0.7	0.7
Oxygen Impact		100°C	efm	130	160	150	180	190
Volatility at 22 hr	ASTM D2595	60°C	%	11.6	2.5	2.4	1.7	
		120°C			40	27	17	0.1
Density		20°C	g/ml	1.83	1.87	1.88	1.89	1.9

## KC Applications:

KC Compressor oils serve in many industries applications

Chemical industry, electrical industry, scientific instruments, precision mechanics, utility goods and commodities

Incandescent lamp and electron tube production, refrigeration industry, plastic industry

Medical research, metallurgical industry, food processing, optical industry, pharmaceutical industry

Toy and jewelry industry, textile industry, nuclear engineering, automobile industry, research and development

Oxygen pump/compressor, cryogenic gas / air compressor, special gas compressor, screw air compressor, reciprocating compressor, centrifugal air compressor, refrigeration compressor, anti-corrosion compressor, chlorine compressor, air compressor oil valve

	Method	Conditions	Units	YC-100	YC-120
Average Molecular Weight	NMR		amu	2100	2400
Vapor Pressure	Knudsen	20°C	torr	$2 \times 10^{-5}$	$2 \times 10^{-5}$
		100°C		$5 \times 10^{-3}$	$5 \times 10^{-3}$
Kinematic Viscosity	ASTM D445	20°C		100	120
		40°C		35	42
		100°C		6	6.8
Pour Point	ASTM D97		°C	-47	-46
Surface Tension	ASTM D1331	20°C	dyne/cm	21	21
Viscosity Index	ASTM D2270			116	120
Volatility at 22 hr	ASTM D2595	60°C	%	0.8	0.6
		120°C		11	8
Density		20°C	g/ml	1.88	1.89

#### YC Applications:

YC Compressor oils serve in many industries applications

Chemical industry, electrical industry, scientific instruments, precision mechanics, utility goods and commodities

Refrigeration industry, plastic industry

Medical research, metallurgical industry, food processing, optical industry, pharmaceutical industry

Nuclear engineering, automobile industry, research and development

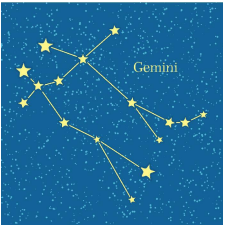
Liquid compressor, cryogenic liquid pump, liquid oxygen pump bearing,

Centrifugal gear pump gearbox bearing, missile satellite carrier liquid engine

#### Attentions:

- . Do not mix oils of different types. Thoroughly remove old oils before applying. We suggest use our PFS-190 as PFPE oils cleaning agent.
- . During processing, wear protection clothes, be careful of eye, skin contact.
- . Keep the container sealed and store in cool, well ventilated locations, shelf life 10 years.

**Packaging/Transport:** 10Kg,25Kg,50Kg plastic container. Not classified as dangerous in the meaning of transport regulations.



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