

# Klea® 507

## Technical Data Sheet

### Applications

Some of its most common applications are:



Medium- and large-scale commercial and industrial refrigeration.



Used in low and medium temperature refrigeration systems.



Refrigeration systems in supermarkets, cold storage facilities, and refrigerated transport.



Can be used as a retrofit option for R-22 and R-502.

### Advantages

**Product Information:** Klea® 507



Does not deplete the ozone layer.



Reliable performance in low and medium temperature applications.



Good cooling capacity and energy efficiency.



Azeotropic blend – composition remains stable during use.

### Product Information

Klea® 507 refrigerant is a viable alternative to R-22 and R-502 for new and retrofit applications. Klea® 507 offers good benefits in flooded systems. For a reduced GWP alternative, Klea® 407A is a good refrigerant in supermarket and other commercial applications.

## Product Information cont'd

Composition (wt%) R-125/R-143a = 50/50. Please note that not all products are available in all markets.

Klea® 507 is a non-flammable, high-performance refrigerant recommended for applications requiring low and stable evaporation temperatures. It is a widely used solution in the commercial and industrial refrigeration sectors.

As an azeotropic blend, Klea® 507 maintains a consistent composition during charging and operation, making maintenance and recharging easier without compromising system efficiency.

Property	S.I. Units	Value	British Units	Value
Molecular Weight	kg/kmol	98.86	lbm/lbmol	98.86
Critical Temperature	°C	70.62	°F	159.11
Critical Pressure	bara	37.05	psia	537.36
Critical Density	kg/m <sup>3</sup>	490.77	lb/ft <sup>3</sup>	30.64
Atmospheric Bubble Point	°C	-46.741	°F	-52.1
Atmospheric Dew Point	°C	-46.741	°F	-52.1
Latent Heat of Vapourisation at Atmospheric Pressure	kJ/kg	196.8	BTU <sub>IT</sub> /lb	84.61
Saturated Vapour Density at Atmospheric Pressure	kg/m <sup>3</sup>	5.5861	lb/ft <sup>3</sup>	0.35
Liquid Vapour Pressure at 25°C	bara	12.826	psia	186.0
Coefficient of Volumetric Thermal Expansion for Saturated Liquid at 25°C	°C <sup>-1</sup>	0.0050859	°F <sup>-1</sup>	0.00283
Speed of Sound* for Saturated Vapour at 25°C	m/s	131.85	ft/s	432.58
Adiabatic Exponent* for Saturated Vapour at 25°C		1.38		1.38
Latent Heat of Vapourisation at 25°C	kJ/kg	135.76	BTU <sub>IT</sub> /lb	58.37
Saturated Vapour Density at 25°C	kg/m <sup>3</sup>	68.888	lb/ft <sup>3</sup>	4.30
Saturated Vapour Density at 0°C	kg/m <sup>3</sup>	32.251	lb/ft <sup>3</sup>	2.01



### Recommended Lubricants

- POE oil is recommended for compressor lubrication
- It should not be mixed with mineral-type oils.

### Performance

- It has a lower discharge temperature compared to R-502, which increases the equipment's lifespan.



## Fluor & Energy Materials

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## More about Orbia Fluor & Energy Materials

Orbia's Fluor & Energy Materials (F&EM) business is the world's largest integrated manufacturer and supplier of refrigerants for the refrigeration and air conditioning industry.

From raw material extraction to our manufacturing centers in Mexico, the United Kingdom, the United States, and Japan, with in-depth expertise in technical support and product development, our "mine-to-market" philosophy guarantees high reliability and security in supply and service to our customers.