



R-427A

GUARANTEED COMMERCIAL SPECIFICATIONS

STANDARD SPECIFICATIONS	LIMIT VALUE
Composition:	
R-32	15 % (± 2.0 %)
R-125	25 % (± 2.0 %)
R-143a	10 % (± 2.0 %)
R134a	50 % (± 2.0 %)
Guaranteed purity	≥ 99.5 % weight
Water content	≤ 10 ppm weight
Acidity (HCl)	≤ 1 ppm weight
Non-condensable content (gas phase)	≤ 1.5 % volume
High-boiling residues	≤ 0.01 % volume

MAIN APPLICATIONS

R-427A (Forane® FX100) is a non-azeotropic HFC blend intended to replace R-22 (HCFC). It can be used in direct expansion refrigeration and air conditioning applications.

OILS

Use a polyol ester (POE) oil.

For use in conversion, a residual variable level of mineral oil (MN), or original alkylbenzene (AB) is acceptable as a function of the running speed.

Check with **Climalife** regarding the viscosity of the oil selected for your application, and the miscibility with the fluid under consideration.

PRECAUTIONS OF USE

Refer to the Safety Data Sheet*.

REGULATION

Use, implementation and recovery of R-427A are governed by European regulation no. 2024/573. It is also important to refer to the regulations in force in each country in Europe and outside Europe.

*Find Safety Data Sheets (SDS) directly on our website www.climalife.com



R-427A PHYSICAL PROPERTIES

Molar mass	g/mol	90.44
Melting point	°C	N/A
Boiling point (at 1.013 bar)	°C	-42.97
Temperature glide at 1.013 bar	K	6.76
Saturated liquid density at 25°C	kg/m ³	1129
Saturated vapour density at boiling point	kg/m ³	4.85
Vapour pressure at: 25°C	bar	11.43
50°C	bar	21.25
Critical temperature	°C	85.3
Critical pressure	bar	43.92
Critical density	kg/m ³	490
Latent heat of vaporisation at boiling point	kJ/kg	236.52
Thermal conductivity of liquid at 25°C	W/(m.K)	0.079
Thermal conductivity of vapour at 1.013 bar	W/(m.K)	0.014
Surface tension at 25°C	10 ⁻³ N/m	6.61
Viscosity of liquid at 25°C	10 ⁻³ Pa.s	0.154
Viscosity of vapour under 1.013 bar	10 ⁻³ Pa.s	0.012
Specific heat capacity of liquid at 25°C	kJ/(kg.K)	1.517
Specific heat of vapour at 1.013 bar	kJ/(kg.K)	0.847
Cp/Cv ratio at 25°C at 1.013 bar		1.135
Flammability in air		Non-flammable
Flash point	°C	None
Classification NF-EN 378		A1
ASHRAE		A1
Ozone Depletion Potential	(R-11 = 1)	0
GWP according to Regulation (EU) 2024/573 (F-Gas III)	(CO ₂ = 1)	2138
GWP (AR4 / AR6)		2138 / 2397

Please contact your distributor or our **Climalife** sales department for more information. In addition, if the refrigeration system you want to install, or are working on, does not appear to be a typical installation, please do not hesitate to contact us for advice and information.

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