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A-GAS™

Refrigerant R404A



- Substitute for R502
- Commercial applications
- Refrigerated transport



Product Description

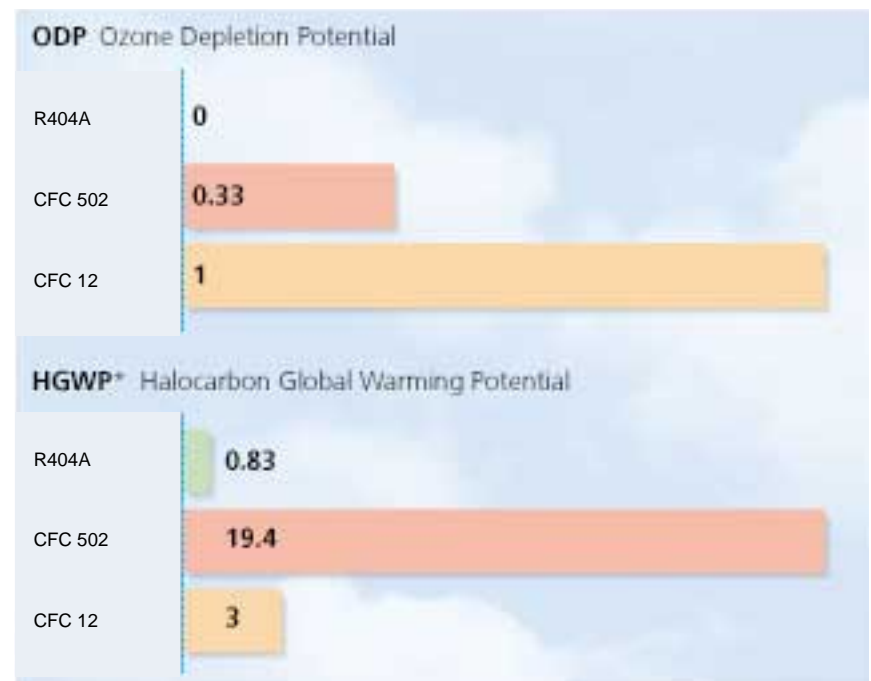
Substitute for R 502

- Near azeotropic refrigerant containing R 125, R 143 a and R 134a (44/52/4 % by weight)
- Refrigerant must be charged from liquid phase
- Physical and thermodynamical properties comparable to R 502
- Non-flammable
- Compressors must be charged with polyolester oils

Applications

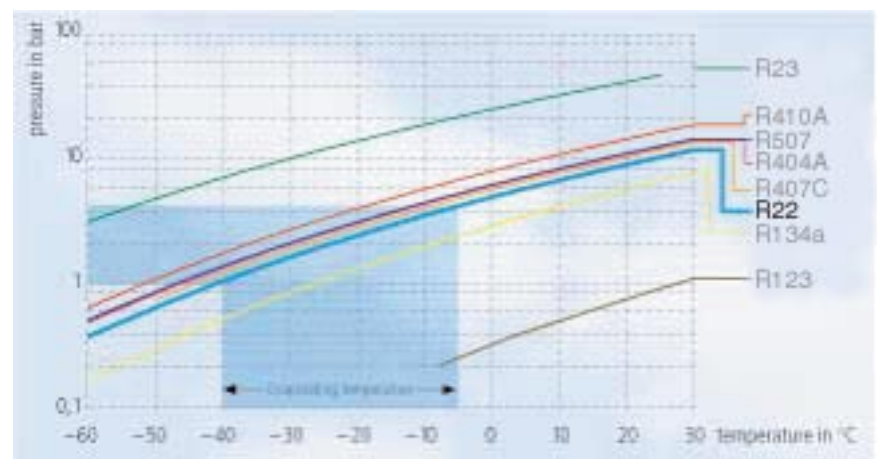
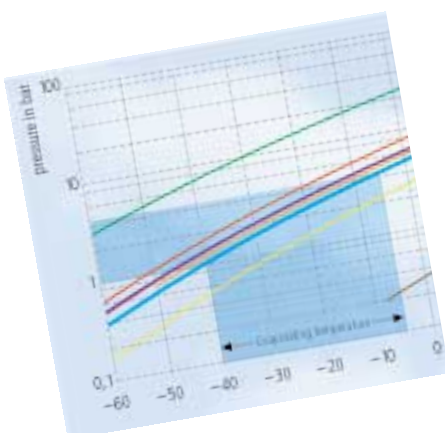
- Cold-storage cells
- Supermarket display cases
- Ice machines
- Replacement for R 502 in transport refrigeration
- Retrofit of existing R 502-installations with R 404A is possible

Environmental Aspects

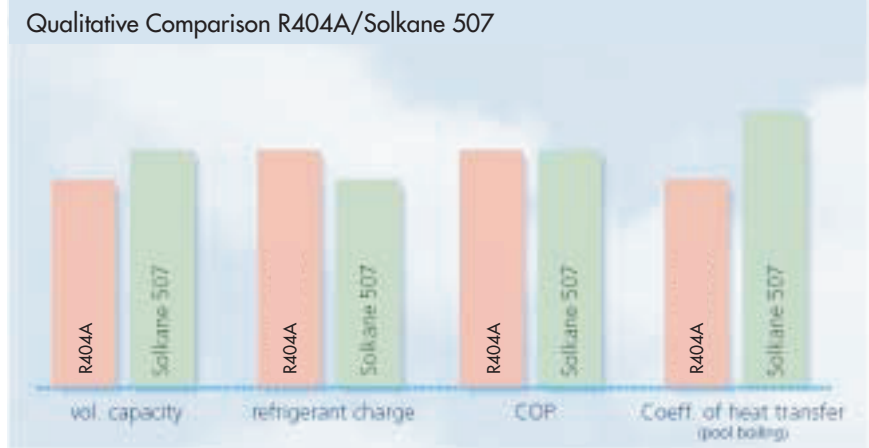


*The HGWP is related to R11 for an infinite time horizon.

Range of Application



Performance



Physical Properties

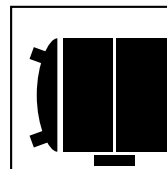
Chemical Name	Pentafluoroethane/ 1,1,1-Trifluoroethane/ 1,1,1-Tetrafluoroethane	
Chemical Formula	CHF ₂ -CF ₃ /CH ₃ -CF ₃ / CF ₃ -CH ₂ F	
Molecular Weight	kg/kmol	97.60
Boiling Point at 1.013 bar bubble point/dew point	°C	-46.4/-45.7
Critical Temperature	°C	72.07
Critical Pressure	bar	37.32
Critical Density	kg/m ³	485
Critical Volume	m ³ /kg	2.06 x 10 ⁻³
Density Liquid ¹⁾	kg/m ³	1045
Density Saturated Vapour ¹⁾	kg/m ³	64.033
Heat of Vaporization ¹⁾	kJ/kg	143.68
Specific Heat Capacity ¹⁾ (Liquid)	kJ/kgK	1.64
Specific Heat Capacity ²⁾ (Vapour)	kJ/kgK	1.03

¹⁾ at 25 °C
²⁾ at 25 °C and 1.013 bar

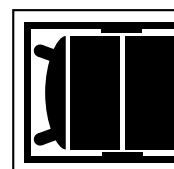
Packaging



Pre-filled returnable
cylinders



Returnable tanks
(720 kg)



ISO-Tank containers
(16 500 kg)



Disposable cylinders

