

Klea 407H



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Product information

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Testing conducted individually by Nisshin Refrigeration & Engineering Ltd (Japan), Fukushima Industries, Corp (Japan), and Jaume I University (Spain) Information provided by Daikin Chemical Europe GmbH

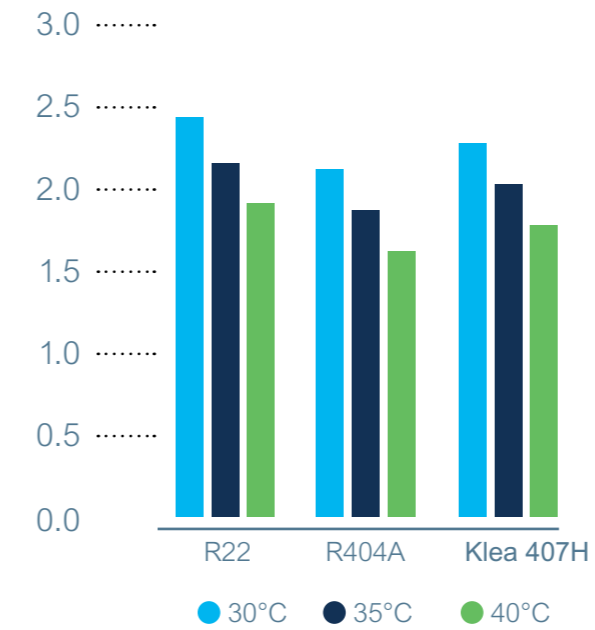
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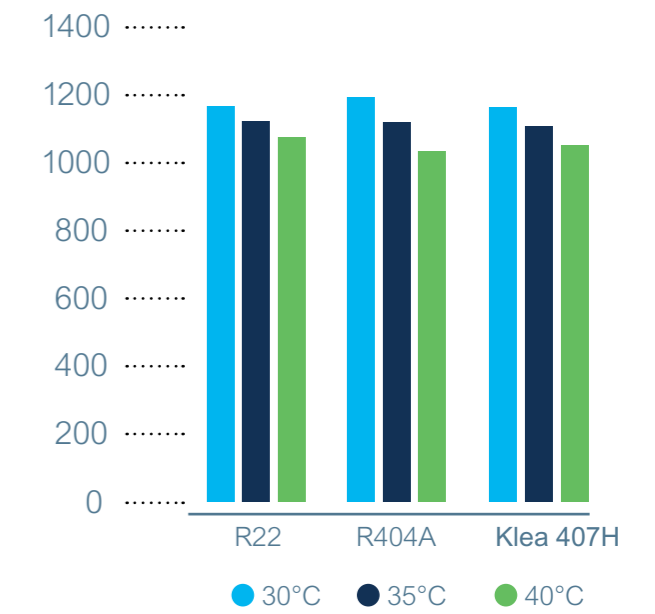


Theoretical Performance ¹

COP



Capacity, kJ/m³



¹Conditions Cycle Simulation:
 $t_c: 0^\circ\text{C}$, t_e =variable, $T_{\text{superheat}}=10\text{K}$, $T_{\text{subc}}=2\text{K}$, isent.eff.= $f(p/p_c)$

Physical Properties ²

Chemical Name		Difluoromethane / Pentafluoroethane / 1,1,1 Tetrafluoroethane
Chemical Formula		CHF_2 / $\text{CHF}_2\text{-CF}_3$ / $\text{CF}_3\text{-CHF}_3$
GWP ₁₀₀	IPCC 4 th AR / 5 th AR	1495 / 1380
Molecular Weight	kg/kmol	79.1
Boiling Point @ 1.013 bar bubble point / dew point	°C	-44.7 / -37.6
Critical Temperature	°C	86.5
Critical Pressure	bar	48.5
Critical Density	kg/m ³	464.1
Critical Volume	dm ³ /kg	2.155
Liquid Density ³	kg/m ³	1111.2
Vapour Density ³	kg/m ³	41.86
Heat of Vaporization ³	kJ/kg	199.02
$c_{p, \text{liq}}^3$	kJ/(kg K)	1.585
$c_{p, \text{vap}}^3$	kJ/(kg K)	1.176
Temp. Glide @ NBP	K	7.0
ASHRAE 34 safety class ⁴		A1

²All thermo-physical data are based on Refprop 9.0

³sat. @25°C

⁴ASHRAE registration application is under examination (as of September) 2016). A1 class is expected.

Packaging

Type	Loan Steel Container	Iso Tank Containers
Size	859 x 2230 (D x L)	6096 x 2438 x 2591 (L x W x H)
Volume	900 l	18000 l
Tara	~ 500 kg	7300 – 9000 kg
Net Content	720 kg	16500 kg
Connections	Valve DIN4676, W 1-1/4	Flange DIN2635, DN40 / PN40 (liq.), DN40 / PN40 (gas)
Other packaging on request		

Klea[®]

Mexichem
Refrigerants

Product description

Drop-In refrigerant for R404A / R507 and Retrofit refrigerant for R22

- Zeotropic Refrigerant containing R32 / R125 / R134a (32.5% / 15% / 52.5% by weight)
- Refrigerant must be charged from the liquid phase
- Comparable thermo-physical properties to R404A / R507 and R22
- Non flammable, low toxic
- Lower GWP compared to R404A / R507
- Compressors must be charged with POE oils
- ASHRAE A1 Class

Applications

- Replacement for R404A / R507 and R22
- Cold storage cells
- Supermarket multiplex systems and display cases
- Ice machines
- Transport refrigeration
- Condensing units, chillers

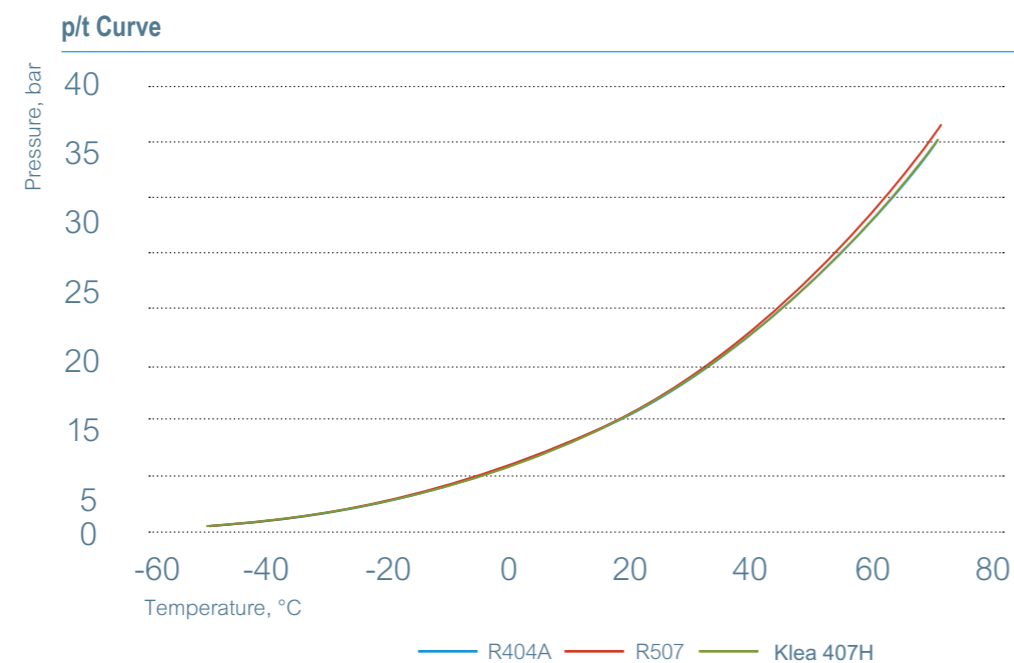
Environmental aspects

Klea 407H is a zeotropic blend consisting of R32 / R125 / R134a.

It is designed as a R404A / R507 Drop-In and as a R22 Retrofit replacement in refrigeration systems.

Due to its moderate GWP it is suitable to reduce the GWP load while replacing high GWP refrigerant like R404A / R507 for low temperature applications under the same safety conditions.

Range of Applications



Notes