

REFRIGERANT FACT SHEET R448A

Gas2GO®

CHARACTERISTICS

R448A is a HFO blend refrigerant suitable for use in low and medium temperature applications.

R448A was developed as a lower GWP alternative to R404A, R507, R407F and R22.

R448A has the lowest GWP of any non-flammable.

PERFORMANCE

- As a retrofit replacement for R404A in supermarket applications, R448A delivers a reduction in power consumption and a significant reduction in carbon footprint in low and medium temperature applications
- R448A is a better alternative to R404A in both low and medium temperature supermarket applications as it has a higher capacity and 5 – 10% better energy efficiency than R404A
- Polyolester oil is required with R448A to ensure adequate oil return
- Existing TX valves may operate satisfactorily with R448A, superheat adjustment will be required. Where practical an electronic expansion device should be considered

APPLICATIONS



Low Temperature Refrigeration

- Cold storage



Medium Temperature Refrigeration

- Commercial

PHYSICAL ATTRIBUTES



- **ODP:** 0
- **GWP:** 1273
- **Class/Type:** Zeotropic blend (A1)
- **Refrigerant Kind:** HFC / HFO blend
- **Oil Type:** Polyolester Oil (POE)
- **Glide:** 3.5K

FEATURES

- Suitable for use in new installations as well as retrofitting of existing equipment
- Best performing lower GWP refrigerant with improved energy efficiency compared to other HFC's
- Improved capacity over R22 and R404A, with a reduction in power consumption
- Lower compressor discharge temperature
- Liquid charge

THERMODYNAMIC PERFORMANCE

- 68% reduction of GWP compared with R404A
- More than 5% increase in energy efficiency in low temperature applications and more than 10% increase in energy efficiency in medium temperature applications in comparison to R404A
- Similar performance in refrigeration systems using R22 in low and medium temperature application

PRODUCT PART NUMBERS

- **H448010** 10kg Cylinder
- **H448055** 55kg Cylinder

For safety, handling and storage information please refer to the MSDS (available on Chemwatch)

This information is believed to be accurate and reliable, but is provided as a guide only. Beijer Ref Holdings Australia Pty Ltd (T/A Beijer Ref Support) accepts no responsibility and the end user assumes all risks and liability for the use of this information.

PRESSURE TEMPERATURE CHART

Liquid (bubble) Temp C°	Vapour (dew) Temp C°	Pressure (kPa)
-46.2	-40.0	100
-37.5	-31.4	150
-30.8	-24.8	200
-25.3	-19.4	250
-20.6	-14.7	300
-16.5	-10.6	350
-12.8	-7.0	400
-9.4	-3.7	450
-6.4	-0.6	500
-3.5	2.2	550
-0.8	4.8	600
1.7	7.3	650
4.1	9.6	700
6.3	11.8	750
8.5	13.9	800
10.5	15.9	850
12.4	17.8	900
14.3	19.7	950
16.1	21.4	1000
17.9	23.1	1050
19.5	24.8	1100
21.2	26.4	1150
22.7	27.9	1200
24.2	29.4	1250
25.7	30.8	1300
27.2	32.2	1350
28.6	33.6	1400
29.9	34.9	1450
31.2	36.2	1500
32.5	37.4	1550
33.8	38.6	1600
35.0	39.8	1650
36.2	41.0	1700
37.4	42.1	1750
38.6	43.2	1800
39.7	44.3	1850
40.8	45.4	1900
41.9	46.5	1950
43.0	47.5	2000
44.0	48.5	2050
45.1	49.5	2100
47.1	51.4	2200
49.0	53.2	2300
50.9	55.0	2400
52.7	56.8	2500
54.5	58.4	2600
56.2	60.1	2700
57.9	61.6	2800
59.5	63.2	2900

PHYSICAL PROPERTIES

Class/ Type	Zeotropic blend
Formula	26% R32/ 26% R125/ 21% R134a/ 20% R1234yf/ 7% R1234ze
Kind	HFC
Appearance	Colourless
ODP	0
GWP	1273
ASHRAE Std. 34 Safety class	A1

Units	AHRI Specification
Molecular Weight	86.3 g/mol
Boiling Point	- 45.9
Critical Temperature	83.7°C
Critical Pressure	46.6 bar
Critical Volume	0.00208 m ³ / kg
Critical Density	480.2 kg/m ³
Vapour Density at Boiling Point	4.701 kg/m ³
Liquid Density at 0°C	1192.5 kg/m ³
Liquid Density at 25°C	1092.3 kg/m ³
Vapour Density at 25°C	1.165 kg/m ³
Vapour Pressure at 25°C	1107.1 kPa
Liquid Viscosity at 25°C	138.1 µPa-sec
Vapour Viscosity	12.3 µPa-sec

OUR SERVICES



Gas2Go®
Refrigerant Management



Gas2Go®
Gas Doctor Analysis



Gas2Find™
Leak Detection



Gas2Go® Reclaim &
Gas2Go® Pumpdown

YOUR LOCAL HVAC&R REFRIGERANT SPECIALIST



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to ISO9001



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