

REFRIGERANT FACT SHEET R452A

Gas2Go®

CHARACTERISTICS

R452A is a non-flammable HFC blend refrigerant, developed for use in air conditioning equipment, specifically designed for R452A.

R452A is not suitable for retrofitting due to higher operating pressures.

Gas2Go® recommends alternative refrigerants with substantially lower GWP.

PERFORMANCE

- R452A can be retrofitted to direct expansion systems using R404A or R507 without change of components
- Closely matches the characteristics and performance of R404A, R507, R448 and R449
- Using R452A as a replacement results in time and cost savings during a retrofit
- R452A should only be liquid charged into a system to ensure correct refrigerant composition and system performance
- Systems operating on R452A may be compatible with R448A as an alternative when the full charge is replaced.

APPLICATIONS



Low Temperature Refrigeration

- Cold storage



Medium Temperature Refrigeration

- Commercial
- Transport

PHYSICAL ATTRIBUTES



- **ODP:** 0
- **GWP:** 2140
- **Class/Type:** Zeotropic blend (A1)
- **Refrigerant Kind:** HFC/HFO
- **Oil Type:** Polyolester Oil (POE)
- **Glide:** ~ 3K

FEATURES

- GWP 45% lower than R404A
- GWP 40.5% higher than R448A
- Matches discharge temperature to R404A and R507
- Allows for use in new and existing equipment
- No TX valve change required
- Quick and easy retrofit option
- Can be topped up after leaks
- Compatible with existing equipment and lubricants

THERMODYNAMIC PERFORMANCE

- Mimics capacity and efficiency performance of R404A
- Similar mass flow to R404A, R507 and R448A

PRODUCT PART NUMBERS

Availability to be confirmed, contact your Kirby & Beijer Ref representative for more information.

For safety, handling and storage guidelines 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

Temp C°	Dew (kPa)	Pressure (kPa)
-44	-2.5	17.2
-42	7.4	28.6
-40	18.0	41.0
-38	29.4	54.2
-36	41.6	68.4
-34	54.8	83.5
-32	68.9	99.8
-30	84.0	117.1
-28	100.1	135.5
-26	117.3	155.1
-24	135.6	175.9
-22	155.0	198.0
-20	175.7	221.5
-18	197.7	246.3
-16	221.0	272.6
-14	245.7	300.3
-12	271.7	329.6
-10	299.3	360.4
-8	328.4	392.9
-6	359.1	427.1
-4	391.5	463.0
-2	425.6	500.8
0	461.4	540.4
2	499.1	581.9
4	538.6	625.4
6	580.1	670.9
8	623.7	718.5
10	669.3	768.3
12	717.0	820.2
14	737.0	874.4
16	819.3	931.0
18	873.9	989.9
20	930.9	1051.3
22	990.5	1115.2
24	1052.6	1181.7
26	1117.4	1250.8
28	1184.9	1322.6
30	1255.3	1397.2
32	1328.6	1474.5
34	1404.8	1554.8
36	1484.2	1638.1
38	1566.8	1724.4
40	1652.6	1813.7
42	1741.8	1906.3
44	1834.6	2002.1
46	1930.9	2101.2
48	2031.1	2203.7
50	2125.1	2309.6

PHYSICAL PROPERTIES

Class/ Type	Zeotropic blend
Formula	59% R125/ 30% R1234yf/ 11% R32
Kind	HFC/HFO
Appearance	Colourless
ODP	0
GWP	2140
ASHRAE Std. 34 Safety class	A1

Units	AHRI Specification
Molecular Weight	103.5 g/mol
Boiling Point	- 47°C
Critical Temperature	74.9°C
Critical Pressure	40 bar
Critical Volume	0.0017 m³/ kg
Critical Density	506.66 kg/m³
Liquid Density at 0°C	1237 kg/m³

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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