

## REFRIGERANT FACT SHEET R407F

### CHARACTERISTICS

R407F is a non-flammable HFC blend refrigerant developed for use in low and medium temperature commercial refrigeration applications.

R407F can be used as a suitable replacement for R404A.

**Heatcraft recommends alternative refrigerants with substantially lower GWP.**

### PERFORMANCE

- R407F has been shown to be more efficient than R404A in many applications, with a lower GWP R407F delivers both environmental gains and lower energy costs
- R407F is a suitable retrofit replacement for R22, R404A and R502
- Retrofitting process is straightforward, with no need to replace TX valves in most applications (follow guidelines)
- Approved by major compressor manufacturers (check OEM guidelines)
- Alternatives include R448A

### THERMODYNAMIC PERFORMANCE

- Greater efficiency than R404A, with energy savings of up to 10 - 15% in many applications
- Similar cooling capacity to R404A
- Higher discharge temperature than R404A at low temperatures
- R407F can reduce CO<sub>2</sub> emissions by up to 40%

### PHYSICAL ATTRIBUTES

**ODP:** 0

**GWP:** 1824

**Class/ Type:** Zeotropic blend (A1)

**Refrigerant Kind:** HFC Blend

**Oil Type:** Polyolester Oil (POE)

**Glide:** ~ 4K

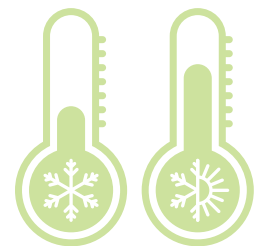
### FEATURES

- Non-flammable (A1)
- Lower GWP than R404A
- Higher efficiency than R404A
- Liquid charge only
- Suitable for use in new and retrofit applications

### APPLICATIONS

Low and medium temperature applications including:

- Commercial refrigeration
- Supermarket refrigeration
- Cold storage



### PRODUCT PART NUMBERS

- **H407F10** 10kg Cylinder
- **H407F50** 50kg Cylinder

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

## PRESSURE TEMPERATURE CHART

Temp C°	Dew (kPa)	Bubble (kPa)
-44	-20	11
-42	-11	22
-40	-2	34
-38	9	47
-36	20	60
-34	32	75
-32	45	91
-30	59	108
-28	74	126
-26	90	145
-24	107	166
-22	125	188
-20	145	211
-18	166	235
-16	188	261
-14	211	289
-12	237	318
-10	263	348
-8	291	381
-6	321	415
-4	353	450
-2	386	488
0	421	528
2	458	569
4	497	613
6	538	659
8	581	706
10	626	757
12	674	809
14	723	864
16	776	921
18	830	960
20	888	1043
22	947	1107
24	1010	1175
26	1075	1245
28	1143	1318
30	1215	1394
32	1289	1473
34	1366	1555
36	1447	1640
38	1531	1729
40	1618	1820
42	1709	1915
44	1803	2013
46	1902	2115
48	2004	2221
50	2110	2330

## PHYSICAL PROPERTIES

Class/ Type	Zeotropic blend	Units	AHRI Specification
Formula	40% R134a/ 30% R32/ 30% R125	Molecular Weight	82.1 kg/mol
Kind	HFC Blend	Boiling Point	-46.1°C
Appearance	Colourless	Critical Temperature	83°C
ODP	0	Critical Pressure	47.54 bar
GWP	1824	Critical Volume	0.0021 m <sup>3</sup> / kg
ASHRAE Std. 34 Safety Class	A1	Critical Density	477.4 kg/m <sup>3</sup>
		Vapour Density at Boiling Point	4.47 kg/m <sup>3</sup>
		Liquid Density at 0°C	1117 kg/m <sup>3</sup>
		Liquid Viscosity	143.99 µPa-sec
		Vapour Viscosity	13.20 µPa-sec





Quality control  
ISO9001



Local  
manufacture  
and decanting



ARCTick Reporting



Access to Kirby  
refrigerant  
technical  
library



Refrigerant recovery  
with zero emissions



Distribution and  
delivery nationally



Cylinder management  
at your fingertips  
through the  
Gas2Go app



Refrigerant  
sample analysis

RFS407F-030519