

# Pressure Temperature Charts



°F	°C	R-744
-40	-40.0	<b>131.0</b>
-35	-37.2	<b>146.5</b>
-30	-34.4	<b>163.1</b>
-25	-31.7	<b>181.0</b>
-20	-28.9	<b>200.2</b>
-15	-26.1	<b>220.8</b>
-10	-23.3	<b>242.7</b>
-5	-20.6	<b>266.1</b>
0	-17.8	<b>291.0</b>
5	-15.0	<b>317.5</b>
10	-12.2	<b>345.7</b>
15	-9.4	<b>375.6</b>
20	-6.7	<b>407.2</b>
25	-3.9	<b>440.7</b>
30	-1.1	<b>476.1</b>
35	1.7	<b>513.4</b>
40	4.4	<b>552.9</b>
45	7.2	<b>594.5</b>
50	10.0	<b>638.3</b>
55	12.8	<b>684.5</b>

°F	°C	R-744
60	15.6	<b>733.1</b>
65	18.3	<b>784.3</b>
70	21.1	<b>838.1</b>
75	23.9	<b>894.9</b>
80	26.7	<b>954.9</b>
85	29.4	<b>1018.0</b>

Vapor Pressure in PSIG

## Refrigerant Boiling Point

Refrigerant:	Components:	BP (0 PSIG):
R-744	R-744 (100%) <b>CO2</b>	-109.2°F

## Liquid Density

Refrigerant	Liquid Density:	-80°F	-40°F	0°F	40°F	80°F	87°F
R-744	lb/cu. ft.	74.8	69.7	63.8	56.2	42.6	35
	lb/gal.	10	9.3	8.5	7.5	5.7	4.7

## Physical Properties

	R-744
Environmental Classification	Specialty, Natural
Molecular Weight	44.01 g/mol
Boiling Point (1atm, °F)	-126.1
Critical Pressure (psia)	1070.0
Critical Temperature (°F)	87.8
Critical Density (lb./ft <sup>3</sup> )	29.2
Vapor Density (bp, lb./ft <sup>3</sup> )	0.2
Liquid Heat of Vaporization (bp, BTU/lb.)	-73.1
Ozone Depletion Potential (CFC 11 - 1.0)	0
Global Warming Potential (CO2 = 1.0)	1
ASHRAE Standard 34 Safety Rating	A1