R-1234yf pressure–temperature chart

2,3,3,3-Tetrafluoropropene — a single-component HFO. Also written R1234yf. Saturation pressure from −52 to 92 °C, every 2 K, in kPa gauge and bar gauge, computed with CoolProp.

SAFETY CLASS
A2L
Lower toxicity, lower flammability

GWP, 100-YEAR
0.501 (AR6)
IPCC AR6; not listed in AR4

ODP
0
Montreal Protocol

CRITICAL POINT
94.70 °C · 3,382.2 kPa abs
CoolProp, from its equation of state

NORMAL BOILING POINT
−29.49 °C
At 101.325 kPa

	SATURATION PRESSURE	
T (°C)	kPa g	bar g
−52	−67.8	−0.68
−50	−63.9	−0.64
−48	−59.7	−0.60
−46	−55.1	−0.55
−44	−50.2	−0.50
−42	−44.8	−0.45
−40	−39.0	−0.39
−38	−32.7	−0.33
−36	−25.9	−0.26
−34	−18.6	−0.19
−32	−10.7	−0.11
−30	−2.3	−0.02
−28	6.8	0.07
−26	16.5	0.16
−24	26.8	0.27
−22	37.8	0.38
−20	49.6	0.50
−18	62.1	0.62
−16	75.4	0.75
−14	89.6	0.90
−12	104.6	1.05
−10	120.5	1.20
−8	137.3	1.37
−6	155.0	1.55
−4	173.8	1.74

	SATURATION PRESSURE	
T (°C)	kPa g	bar g
−2	193.6	1.94
0	214.5	2.14
2	236.5	2.36
4	259.6	2.60
6	283.9	2.84
8	309.4	3.09
10	336.2	3.36
12	364.3	3.64
14	393.7	3.94
16	424.5	4.25
18	456.7	4.57
20	490.4	4.90
22	525.6	5.26
24	562.3	5.62
26	600.6	6.01
28	640.6	6.41
30	682.2	6.82
32	725.5	7.26
34	770.6	7.71
36	817.6	8.18
38	866.4	8.66
40	917.1	9.17
42	969.7	9.70
44	1,024.4	10.24
46	1,081.1	10.81

	SATURATION PRESSURE	
T (°C)	kPa g	bar g
48	1,140.0	11.40
50	1,201.0	12.01
52	1,264.2	12.64
54	1,329.8	13.30
56	1,397.6	13.98
58	1,467.9	14.68
60	1,540.6	15.41
62	1,615.8	16.16
64	1,693.6	16.94
66	1,774.0	17.74
68	1,857.2	18.57
70	1,943.2	19.43
72	2,032.1	20.32
74	2,123.9	21.24
76	2,218.8	22.19
78	2,316.8	23.17
80	2,418.1	24.18
82	2,522.8	25.23
84	2,631.1	26.31
86	2,743.0	27.43
88	2,858.9	28.59
90	2,979.0	29.79
92	3,103.7	31.04

NOTES Gauge pressure is absolute pressure less a standard atmosphere, 101.325 kPa; below it, gauge pressure is negative.

SOURCES Computed with CoolProp 7.2.1dev (HEOS backend, MIT licence), from published equations of state.
Cite: Bell, I.H., Wronski, J., Quoilin, S., Lemort, V. (2014). Pure and pseudo-pure fluid thermophysical property evaluation and the open-source thermophysical property library CoolProp. Ind. Eng. Chem. Res. 53(6), 2498-2508.
GWP, ODP and safety class: UNEP RTOC 2018, DCCEEW (Australian Government), IPCC AR4 (2007), IPCC AR6 (2021), Montreal Protocol, GHG Protocol (2024).

ONLINE kelvin.engineering/refrigerants/r-1234yf — this table in kPa absolute, and the P–h diagram
kelvin.engineering/tools/superheat-subcooling?r=r-1234yf — superheat and subcooling calculator

VERIFY **These figures must be verified by a qualified professional before they're relied on.**