R-1234ze pressure–temperature chart

trans-1,3,3,3-Tetrafluoropropene — a single-component HFO. Also written R1234ze. Saturation pressure from −70 to 108 °C, every 2 K, in kPa gauge and bar gauge, computed with CoolProp.

SAFETY CLASS
A2L
Lower toxicity, lower flammability

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

ODP
0
Montreal Protocol

CRITICAL POINT
109.36 °C · 3,634.9 kPa abs
CoolProp, from its equation of state

NORMAL BOILING POINT
−18.97 °C
At 101.325 kPa

	SATURATION PRESSURE			SATURATION PRESSURE			SATURATION PRESSURE	
T (°C)	kPa g	bar g	T (°C)	kPa g	bar g	T (°C)	kPa g	bar g
−70	−95.8	−0.96	−10	46.1	0.46	50	895.9	8.96
−68	−94.9	−0.95	−8	58.3	0.58	52	947.7	9.48
−66	−93.9	−0.94	−6	71.3	0.71	54	1,001.5	10.01
−64	−92.8	−0.93	−4	85.1	0.85	56	1,057.3	10.57
−62	−91.6	−0.92	−2	99.7	1.00	58	1,115.2	11.15
−60	−90.2	−0.90	0	115.2	1.15	60	1,175.2	11.75
−58	−88.6	−0.89	2	131.6	1.32	62	1,237.5	12.37
−56	−86.9	−0.87	4	149.0	1.49	64	1,302.0	13.02
−54	−84.9	−0.85	6	167.3	1.67	66	1,368.8	13.69
−52	−82.8	−0.83	8	186.6	1.87	68	1,438.0	14.38
−50	−80.4	−0.80	10	207.0	2.07	70	1,509.6	15.10
−48	−77.8	−0.78	12	228.5	2.29	72	1,583.8	15.84
−46	−74.9	−0.75	14	251.1	2.51	74	1,660.4	16.60
−44	−71.8	−0.72	16	274.9	2.75	76	1,739.7	17.40
−42	−68.3	−0.68	18	299.8	3.00	78	1,821.7	18.22
−40	−64.6	−0.65	20	326.0	3.26	80	1,906.4	19.06
−38	−60.5	−0.60	22	353.5	3.53	82	1,994.0	19.94
−36	−56.0	−0.56	24	382.3	3.82	84	2,084.4	20.84
−34	−51.2	−0.51	26	412.4	4.12	86	2,177.9	21.78
−32	−45.9	−0.46	28	444.0	4.44	88	2,274.5	22.74
−30	−40.2	−0.40	30	477.0	4.77	90	2,374.2	23.74
−28	−34.1	−0.34	32	511.5	5.11	92	2,477.2	24.77
−26	−27.5	−0.27	34	547.5	5.47	94	2,583.7	25.84
−24	−20.3	−0.20	36	585.1	5.85	96	2,693.6	26.94
−22	−12.7	−0.13	38	624.3	6.24	98	2,807.2	28.07
−20	−4.5	−0.04	40	665.1	6.65	100	2,924.7	29.25
−18	4.4	0.04	42	707.7	7.08	102	3,046.1	30.46
−16	13.8	0.14	44	752.0	7.52	104	3,171.9	31.72
−14	23.9	0.24	46	798.1	7.98	106	3,302.2	33.02
−12	34.6	0.35	48	846.1	8.46	108	3,437.7	34.38

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

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