

R-134a pressure–temperature chart

1,1,1,2-Tetrafluoroethane — a single-component HFC. Also written R134a. Saturation pressure from −70 to 100 °C, every 2 K, in kPa gauge and bar gauge, computed with CoolProp.

SAFETY CLASS A1 Lower toxicity, no flame propagation	GWP, 100-YEAR 1,430 (AR4) · 1,530 (AR6) IPCC assessment reports	ODP 0 Montreal Protocol
CRITICAL POINT 101.06 °C · 4,059.3 kPa abs CoolProp, from its equation of state	NORMAL BOILING POINT −26.07 °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	−93.3	−0.93	−12	83.9	0.84	46	1,089.0	10.89
−68	−92.1	−0.92	−10	99.3	0.99	48	1,151.6	11.52
−66	−90.7	−0.91	−8	115.6	1.16	50	1,216.6	12.17
−64	−89.1	−0.89	−6	133.0	1.33	52	1,284.1	12.84
−62	−87.4	−0.87	−4	151.4	1.51	54	1,354.2	13.54
−60	−85.4	−0.85	−2	170.8	1.71	56	1,426.9	14.27
−58	−83.2	−0.83	0	191.5	1.91	58	1,502.3	15.02
−56	−80.8	−0.81	2	213.3	2.13	60	1,580.5	15.80
−54	−78.1	−0.78	4	236.3	2.36	62	1,661.5	16.61
−52	−75.1	−0.75	6	260.7	2.61	64	1,745.4	17.45
−50	−71.9	−0.72	8	286.3	2.86	66	1,832.3	18.32
−48	−68.3	−0.68	10	313.3	3.13	68	1,922.3	19.22
−46	−64.3	−0.64	12	341.7	3.42	70	2,015.5	20.16
−44	−60.0	−0.60	14	371.6	3.72	72	2,111.9	21.12
−42	−55.3	−0.55	16	402.9	4.03	74	2,211.6	22.12
−40	−50.1	−0.50	18	435.9	4.36	76	2,314.8	23.15
−38	−44.5	−0.45	20	470.4	4.70	78	2,421.5	24.22
−36	−38.4	−0.38	22	506.6	5.07	80	2,531.9	25.32
−34	−31.8	−0.32	24	544.5	5.44	82	2,646.0	26.46
−32	−24.7	−0.25	26	584.1	5.84	84	2,764.0	27.64
−30	−16.9	−0.17	28	625.6	6.26	86	2,886.0	28.86
−28	−8.6	−0.09	30	668.9	6.69	88	3,012.3	30.12
−26	0.3	0.00	32	714.1	7.14	90	3,142.9	31.43
−24	10.0	0.10	34	761.3	7.61	92	3,278.0	32.78
−22	20.3	0.20	36	810.5	8.11	94	3,418.0	34.18
−20	31.4	0.31	38	861.8	8.62	96	3,563.1	35.63
−18	43.3	0.43	40	915.3	9.15	98	3,713.9	37.14
−16	56.0	0.56	42	970.9	9.71	100	3,871.1	38.71
−14	69.5	0.69	44	1,028.8	10.29			

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-134a — this table in kPa absolute, and the P–h diagram kelvin.engineering/tools/superheat-subcooling?r=r-134a — superheat and subcooling calculator
VERIFY	These figures must be verified by a qualified professional before they’re relied on.