Carbonation Quick Reference

METRIC TABLE - GAUGE PRESSURE IN BAR

Pure CO2 at equilibrium; standard local atmosphere 1013.25 hPa (1.01325 bar absolute). Columns are target total volumes of CO2, not additional gas to inject.

> **Read the asterisk before selecting a row**
> * Temperature outside our independently checked 33-42°F (0.56-5.56°C) reference rectangle. Those rows are extrapolated from the reference checks. Every value is a model estimate, not a measured beer or equipment rating.

°C	°F	2.1 vol	2.3 vol	2.5 vol	2.7 vol	2.9 vol	3.1 vol
0*	32.0	0.31	0.44	0.57	0.70	0.83	0.96
1	33.8	0.36	0.49	0.63	0.76	0.90	1.03
2	35.6	0.41	0.55	0.69	0.83	0.97	1.11
3	37.4	0.47	0.61	0.75	0.90	1.04	1.18
4	39.2	0.52	0.67	0.82	0.97	1.11	1.26
5	41.0	0.58	0.73	0.88	1.03	1.18	1.34
6*	42.8	0.63	0.79	0.95	1.10	1.26	1.41
8*	46.4	0.75	0.91	1.08	1.24	1.41	1.57
10*	50.0	0.86	1.04	1.21	1.38	1.56	1.73

Use a beer-specific target

At **4°C, 2.5 volumes** and standard atmosphere, the model gives **0.817859 bar gauge**, displayed here as **0.82 bar**. Ask the brewer / supplier for the carbonation target and measure stable liquid temperature. Do not substitute a fridge display.

Equilibrium pressure does not tell you carbonation time or the current dissolved CO2 in an unknown beer. This sheet supplies no burst-carbonation, shaking, mixed-gas or carbonation-stone procedure.

Sources: GW Kent equation; BA table B.1. Generated directly from our model. Full assumptions, comparison and local-atmosphere correction continue on page 2.

Carbonation Quick Reference

US TABLE - GAUGE PRESSURE IN PSI

Pure CO2 at equilibrium; standard local atmosphere 14.696 psi absolute (1013.25 hPa). Columns are target total volumes of CO2. * marks extrapolated temperature rows.

°F	°C	2.1 vol	2.3 vol	2.5 vol	2.7 vol	2.9 vol	3.1 vol
32*	0.0	4.4	6.3	8.2	10.1	12.0	13.9
34	1.1	5.3	7.3	9.2	11.2	13.1	15.1
36	2.2	6.2	8.2	10.2	12.3	14.3	16.3
38	3.3	7.0	9.1	11.2	13.3	15.4	17.5
40	4.4	7.9	10.1	12.3	14.4	16.6	18.8
42	5.6	8.8	11.1	13.3	15.5	17.8	20.0
44*	6.7	9.7	12.1	14.4	16.7	19.0	21.3
46*	7.8	10.7	13.0	15.4	17.8	20.2	22.5
50*	10.0	12.5	15.0	17.6	20.1	22.6	25.1

Correct for actual local atmospheric pressure

P local gauge = P table + 1.01325 - P atmosphere [all in bar]
P local gauge = P table + 14.69595 - P atmosphere [all in psi]

Use actual local absolute atmospheric pressure, not weather pressure corrected to sea level. The online calculator accepts the local input and converts units. A negative calculated gauge requirement is not a normal regulator recommendation.

> **Model, comparison and limits**
> Empirical polynomial documented by GW Kent; no beer-composition or ABV correction. Tool scope: 0-30°C, 1-4 volumes, 0.5-1.1 bar absolute atmosphere (implementation choices, not validated safety limits). Reference checks: 110 BA points at 33-42°F and 2.1-3.1 volumes; largest observed difference 0.369 psi / 0.0254 bar. This is not a universal error bound.

Numbers are rounded for reading (bar: 2 decimals; psi: 1). Retain full precision for calculations. Confirm actual beer condition and equipment limits separately. These are holding-equilibrium estimates, not pressure ratings.

Sources: GW Kent equation; BA reference table B.1 and its beer-composition assumptions.