

F2 Fizz Cheat Sheet

Stop burping and hoping. Pick a fizz level, dose the sugar for it, check it with a gauge.

1 PICK A TARGET

Fizz is measured in **volumes of CO₂**: litres of gas dissolved per litre of drink. Brewers have used it for decades.

FEEL	VOLUMES	LIKE
Gentle	1.5 – 2.0	cask ale
Lively	2.5 – 3.0	lager
Soda-sharp	3.0 – 3.5	soft drinks
Champagne	5 – 6	not in normal bottles

Start at **2.5 – 3.0**. Typical values, rounded.

2 DOSE THE SUGAR

Per **500 ml bottle**, white sugar, fermented out. Kombucha already holds roughly 0.5 – 0.9 vol after F1; this table assumes 0.7.

TARGET	ADD SUGAR
2.0 vol	≈ 2.5 g
2.5 vol	≈ 3.5 g
3.0 vol	≈ 4.5 g
3.5 vol	≈ 5.5 g

$$\text{sugar (g)} \approx (\text{target} - 0.7) \times 3.8 \times \text{litres}$$

Juice: sugar (g) ≈ ml × °Brix ÷ 100 (refractometer). **Honey:** use ~1.25 g per 1 g sugar.

3 CHECK IT WITH A GAUGE

A gauge cap reads pressure; temperature turns it into volumes. Same fizz, very different pressure: warm bottles read much higher. Values from the standard brewing carbonation formula, rounded.

VOLUMES	4 °C / 39 °F (FRIDGE)	20 °C / 68 °F	25 °C / 77 °F
2.0	0.45 bar · 6.5 psi	1.4 bar · 20 psi	1.7 bar · 24 psi
2.5	0.8 bar · 12 psi	1.9 bar · 28 psi	2.3 bar · 33 psi
3.0	1.2 bar · 17 psi	2.5 bar · 36 psi	2.9 bar · 42 psi
3.5	1.6 bar · 23 psi	3.0 bar · 43 psi	3.5 bar · 50 psi
4.0	1.9 bar · 28 psi	3.5 bar · 51 psi	4.1 bar · 59 psi

When the gauge bottle hits your target at room temperature, **move every bottle of that batch to the fridge**. Cold stops the build-up and locks the fizz in.

SAFETY: THE NON-NEGOTIABLES

- **Kombucha:** F1 must reach **pH 4.2 or lower** before you bottle.
- **Mould** (fuzzy, dry, coloured spots) means discard the batch *and* the culture. A flat, wrinkly white film is usually kahm yeast, not mould.
- Only bottles **made for pressure**: beer/soda swing-tops or PET soda bottles. Never jam jars or decorative glass.
- No gauge? Fill one PET bottle as a tester. When it's hard to squeeze, fridge the batch.
- Above **4 volumes at room temperature**: stop, fridge everything, open carefully.
- Open bottles **cold**, over the sink, pointed away from faces. Over-pressured: wear eye protection.
- F2 makes a little alcohol and can exceed 0.5 % ABV.
- The sugar table assumes all sugar ferments. Real bottles vary, which is why you check.