

Battered Fish — The Science-First Version

Shatter-crisp, lacy, never greasy — fish and chips by physics. Cold carbonated batter, rice flour for the shatter, oil hot enough to set it on contact.

Yield: **10** portions Active: **30 min** Total: **40 min** Oil: **185°C** (365°F) Done: **deep gold**, crisp

WHERE IT WAS BORN

Sephardic Jewish fried fish (*pescado frito*) met the fried chip in industrial Britain; by the 1860s the “chippy” was born and fish and chips became the national working meal.

EATEN, AUTHENTICALLY

With thrice-cooked chips, mushy peas, malt vinegar and tartare — wrapped and eaten hot, the batter the star and the fish kept plain.

HOW IT'S USED NOW

The chippy classic, plus tacos, a burger, a butty; the same cold batter fries onion rings, sausages and veg.

INGREDIENTS

10 PORTIONS · WEIGHT

FISH

White fish fillets 3 lb 4.9 oz

(cod/haddock, skinless)

Plain flour (for dredging) 2.8 oz ⅝ cup

BATTER (MIX AT THE LAST MINUTE, COLD)

Plain flour 5.3 oz 1¼ cups

Rice flour 5.3 oz 1 cup

Baking powder 0.32 oz 2 tsp

Fine sea salt 0.21 oz 1 tsp

Cold lager / sparkling water 13.4 oz 1½ cups
(ice-cold)

Vodka (cold, optional) 1.4 oz 2¼ tbsps

THE RATIO

Flour 100% (half rice, half plain) · cold beer ~130% · baking powder 3% · salt 2%. A thin coating batter — but the *cold* and the *fizz* matter as much as the numbers.

Kit: deep pot / fryer · probe or fry thermometer · spider / slotted spoon · rack to drain (not a plate) · whisk

METHOD

1. **Prep the fish.** Pat very dry, cut into even 150g portions, salt lightly, keep cold.

Surface water repels batter and drops the oil temperature; even pieces fry evenly. — McGee 2004

2. **Heat the oil to 185°C (365°F).**

Hot enough to flash-set the crust and push steam OUT, so it fries crisp instead of soaking up fat. — McGee; López-Alt

3. **Batter, last-minute & cold.** Whisk 150g plain + 150g rice flour, 9g baking powder, 6g salt; whisk in 380g ice-cold lager + 40g vodka to a thin batter. Leave it lumpy. Use now.

Cold + barely-mixed = low gluten = shatter, not bread; the CO2 escapes if it sits. Rice flour fries glassy; vodka suppresses gluten. — López-Alt

4. **Dredge & fry.** Dust each piece in the 80g flour, dip in batter, let it drip, lower gently into the oil. Fry 4–6 min to deep gold; don't crowd.

The flour dredge gives the batter grip; crowding drops the oil temp and turns it greasy. — López-Alt

5. **Drain, salt, serve.** Onto a rack, salt at once, serve immediately.

Done: deep golden, lacy and crisp, the fish just flaking inside. **Drain on a rack (not a plate), salt, serve at once** — it softens as it steams under itself.

Timing & chips — the batter is the only live step; portion fish and blanch chips ahead. Par-fry the fish pale, then finish-crisp to order across a staggered crew dinner. Chips: blanch at 140°C, crisp at 185°C.

ONE BATTER, MORE THAN FISH

The same cold batter fries **onion rings, battered sausage, halloumi, courgette** — same dredge, same 185°C oil. Make a double batch and run a fried spread.

ELEVATION

TIER 1 — NO EXTRA TIME

- **Vodka splash** — crisper, drier crust
- **Crisp lager** — beats a heavy ale
- **Ice the bowl** — keep the batter cold

TIER 2 — WORTH IT

- **All-rice batter** — gluten-free, extra-crisp
- **Tempura-light** — ice water, minimal mix
- **Curry sauce / mushy peas**

TIER 3 — SERVICE

- **Scraps** — fried batter bits, salted
- **Tartare from scratch**
- **Triple-cooked chips**

TROUBLESHOOT

Greasy	Oil too cool / batter sat → 185°C, mix to order
Not crisp	Too much gluten / no rice flour / warm batter → keep cold, use rice flour
Batter slides off	Fish wet or no dredge → dry the fish, flour it first
Pale & soft	Oil cool / pan crowded → fewer pieces, recover the heat

CHARTER PREP & SAFETY

Batter	Last-minute only — mix per service
Ahead	Portion fish; blanch chips; par-fry pale
Finish	Crisp to order, 185°C
Fryer safety	Fill the pot ≤ 1/3; never leave it; kill the heat in a swell