

## 80% Hydration Sourdough

### Totals:

Flour: 450 + 37.5 (starter)

Water: 350 + 37.5 (starter)

Sea Salt: 5-8g

Hydration: 79.5%

### Steps

1. Mixing (Starter (15g), Flour (30g), Water (30g) @ 25C)
  - We have a kettle in the kitchen, and I usually let that warm up for just half a minute, simply so that it is not tap-cold. If the water is too cold, the fermentation will take much longer. I then mix cold water and some kettle water, until a cool/warm temperature (I don't measure this but it's likely about 22-25C)
  - Mix live starter (simply not straight out of the fridge) and the flour and water. Stir well! Maybe not true, but I want to make sure the starter is dispersed well throughout.
2. Autolyse (Flour (450g), Water (300g) @ 25C)
  - Once the starter has approximately doubled in size (usually about 3-6 hours), begin this step.
  - Heat the water to about the same temperature as the water used in step 1. This will quicken the later fermentation steps
  - Mix the flour and water in a separate bowl, and cover it.
  - This step begins the gluten development within the flour!
3. Mixing (Water (50g), Sea Salt (5-8g))
  - After about 60 - 90 minutes have passed, we will mix the starter into the flour-water mixture.
  - Empty the starter on top of the mixture. Stab it with a silicone spatula everywhere. This increases surface area I think? Greatly help mix the sourdough and mixture.
  - After stabbing, try to sort of mix the starter and flour-water together. No need for perfection, just do a few stretches and folds with the spatula. After about 1 minute of stirring, you can move to the next part.
  - In a separate container, mix the salt in the water so that it mostly dissolves the salt. The temperature of the water doesn't matter here, so you can heat the water until it's warm to help the salt dissolve.
  - Add this salt solution to the flour-water mixture. Again, begin stabbing. A lot. The water will not fully mix in willingly. This is possibly the worst/exhausting part about this
  - Now we need to get all the water absorbed. I've had success with stretch and folding technique, a stand mixer, however the most success

with slap and folds. For the slap and folds, it's less about the smack and more about the tension/stretching of dough that it creates.

- Slap and fold this baby until it all comes together!! Water will be everywhere, try any technique you can think of to absorb the water. The dough will sometimes look way worse than when you started (random strands everywhere, no strength, etc.)
- However, persevere through it because you are simply creating an intense, convoluted, gluten network! Eventually, a form will arise, where the dough looks consistent.
- Once you have form, the more strength that you can build here, the less you have to build later. I've been able to reach the window-pane test at this point, however, you can do less as well.
- When you're done, place that baby back in its bowl, and cover it up!
- IMPORTANT: note the time for when you finish this step.
- Note: Some say that it's better to let the sourdough starter and dough mixture sit without the presence of salt, but I have found no difference.

#### 4. Bulk Fermentation

- After you finish the previous steps, you will need to stretch and fold. This is based on your feelings, but you can follow these times, based on the amount of time after the previous step:
  - 15m, 30m, 45m, 1h, 1h30, 2h, 2h30.
- Stretch and folds: North to South, South to North, East to West, and West to East stretches.
- Sometimes I double up the stretch- But don't do it if the dough feels tense! You do not want to rip the dough/gluten.
- If you feel like you need to do extra stretches (I find it doesn't hurt UNLESS you rip the dough), after about 15-30 mins from a previous stretch, the dough softens and you can stretch extra then.

#### 5. Pre-shape

- You've reached this step based on the signs:
  - Once the dough can either pass the poke test, I believe it should be before a stretch and fold, not after because it will be very tense immediately after. Not positive about this, because I haven't had much success with this test.
  - The dough should be way less sticky at this point. You can gently touch it, and it won't completely get stuck to your hand
  - After about 3h15 - 3h30 (This is what I go by). Note that this time will be 3h45 - 4h instead if you will not be pre-shaping
- Because this is a single loaf, you can skip this step!
- NOTE: You should mostly be using the bench scraper for this step.
- If you do multiple loaves, cut it to the desired divisions (just cut it don't worry about the gluten network).
- Then do some preshape technique. Maurizio's method: <https://www.thepperfectloaf.com/guides/how-to-preshape-bread-dough/>

- (Don't overdo it. Hard to underdo, easy to overdo)
  - This is essentially another stretch and fold. The dough gets tense and is much easier to rip. Hence, you need a 15-30 mins break before you head to the next step
6. Shape
- Shaping articles:
    - Batard: <https://www.theperfectloaf.com/guides/shaping-a-batard/>
    - Boule: <https://www.theperfectloaf.com/guides/shaping-a-boule/>
  - NOTE: You should mostly be using the bench scraper for this step.
  - I'm a batard person because the dough rises more and the scores are better in my opinion. But both are cool
  - For batard, take the pre-shaped mound and try to make a square by gently (do not rip) stretching/guiding the dough into that shape. Then carry through with his steps.
  - Make sure not to rip the surface! Again, don't overdo it. It'll be very obvious if you underdo it, which is hard to do already. Just go easy with it!
  - Plop the baby into a rice-floured banneton.
  - Let these sit for 5-10m (Some say 15-30m), to take in the shape of the banneton while it's warm and active.
7. Overnight Proof
- Cover the banneton in plastic (I just use a milk bag and cover it up)
  - Let it sit overnight!
8. Morning Bake
- Preheat the oven to a temperature between 400 - 450F with your combo cooker in the oven. All that matters is that the internal temperature of the bread is 97C.
  - These all have worked for me:
    - 420F: Covered 30m, Uncovered 10m
    - 450F: Covered 30m, Uncovered 10m
    - 450F: Covered 25m, Uncovered 15m
    - 450F: Covered 20m, Uncovered 30m
  - Do whatever works for you
9. Bake + Score
- Get bread on parchment paper with the banneton textured size up. You know at this point how well your bread will do. If it immediately attempts to flatten out, it won't have much rise. But if it somewhat holds its shape for 30 s, there is hope.
  - Act quickly! This way the bread doesn't flatten out too far. Score fast and put it in the combo cooker. But don't burn yourself.
  - Only tip here is to know what score you're doing beforehand and to just be quick and confident. Do a single slash, not multiple.
  - If you feel like some parts of the cuts did not go as deep as different areas, you can simply just cut a little more there.
  - If you want an ear, keep the blade tilted at about a 45 [deg] angle.

- My favourite batard cuts are both long vertical cuts, one pattern is a single cut straight down the middle. The other is an angled ear cut slightly off-centre, where the cut is angled so that the bread open up towards the center (ie. the blade is always pointing to the center of the bread)

10. Enjoy!