

Instructions for Billowy Sourdough Loaves ©

(For Kitchen Aid K-45 Stand Mixer with dough hook)

(Times (t) are typical, but may be expected to vary.)

Operation	t hrs	Σt hrs	Details	Comments
Inoculate		0	~1/6 oz. 1 to 2 fl. oz. water, 3 fl. oz. flour	Bottled or <i>stood water</i> ²
Incubate @ ~ 85°F	10		Until tripled in volume, maybe 10 hrs.	In covered transparent 40 oz. container on back of stove top near oven vent to get heat from oven pilot
Triple	--	10	Add 4 fl. oz. water, 6 fl. oz. flour	
Incubate @ ~ 85°F.	4		Until tripled in volume, maybe 4 hrs.	Disperse first in water, then mix flour in. stir with chop stick
Inoculate sponge	--	14	Add all to 2 cups water, 3 cups flour	
Incubate @ ~ 85°F.	4		Until tripled in volume, maybe 4 hrs.	Mix manually to incorporate flour
Make dough	--	18	Add 3 cups flour to sponge & 2+ tsp. salt	
Knead ³	1/4		6 min. KA speed #2, 4 min. speed #1	Add flour to keep ball on hook
1 st rise ~70°F.	2		Until doubled, 2-4 hrs.	On counter, covered with large bowl
Split, knead 1min.	--	20-1/4	This knead = flatten & fold several times	May spritz & apply seeds before cutting
2 nd rise ~ 70°F.	3		Until big enough (maybe tripled, maybe more) Cut tops to start, or during 2 nd rise.	In pans, or on parchment-lined tray, covered or enclosed to keep from drying.
Bake	3/4	23-1/4	425°F. 45 min., start cold	No "steam" used in this process
Cool	1	24	On cooling rack	Bag (plastic) before crust starts buckling
Finish – bag & store		25	Freeze what will not be used tomorrow	

¹A jellybean size lump, ~5 grams, ~1 teaspoon full. ²*Stood water* is tap water that has been allowed to stand in an open jug (e.g. 1-gallon plastic) for several weeks before capping. In communities where chloramine is used for chlorination, bottled or boiled water is recommended. ³For kneading, the head is unlocked and allowed to float, greatly reducing the stress on the mixer's motor and gears, and increasing the limit on the amount of dough that can be processed.

Times are estimated, approximate. The time required to raise the dough is very dependent on the technique of building the starter to the dough stage, and upon the temperature. Rise times may be shortened by incubating in a closed space at temperatures up to 90°F. In the example above, if you started at 9 PM, you would be done at 10 PM the next day.

Success is very dependent on building the fermentational activity in a well-timed manner, very similar to building a campfire from tinder. Feeding (adding water and/or flour) is to be done before the batter/dough quits expanding. The use of stout preferments, as specified, is helpful towards this, since batters tend to foam rather than expand, so progress cannot be estimated by volume or height.

By this method, the dough will have a *hydration* less than 60%, and it will rise quite vertically, but will not have the huge holes that some folks expect with sourdough bread. (*Baker's hydration* is the ratio of liquid weight to flour weight). It is very useful to keep track of the times and temperatures for each of the incubational steps, namely:

- 1st starter build
- 2nd starter build
- Sponge maturation
- 1st rise
- 2nd rise

Also, it is suggested to make a record of the final height or approximate volume at the end of these steps.

Very close to 22 fluid ounces ~ 22 ounces of water is used. Weigh the final dough to determine the hydration. It is (22 oz.) / (Dough weight – salt weight (~1/2 oz.) – 22 oz.). Writer's experience is that the dough will weigh ~2 oz. less than four pounds, thus that the hydration will come to $\sim 22 / (62 - 22 - .5) \cong 56\%$. Such bread will rise quite vertically even if it is not constrained in forms (e.g., bread pans). Using less flour will produce bread with more open crumb texture, but which will spread while rising, and, for free-form loaves, may be improved by the technique of couching, flopping, and shoving onto a hot masonry surface in a hot, very humid oven atmosphere. The procedure will yield 2 loaves of ~ 1-3/4 lbs. each. It's about the most that can be made in a K45 mixer.

Reasoning similar to that above indicates that the flour in the above example weighed about 5-1/2 ounces per 8 fluid ounce cup. For convenience, a 24 fluid ounce can may be used to fetch 3 cups of flour.

These instructions are an extension and improvement of the method at <http://home.att.net/~dick.adams/EZSDLoaves/>