

3-Hour Sandwich Bread in a PMDO

Pete Matthews Jr - <https://3nt.xyz> - © November 28, 2024

A poor man's Dutch oven (PMDO) is a pair of identical bread pans, one inverted on top of the other, held together with black steel binder clips. The desirable attributes of our bread pans are:



- Non-stick, metal, and rounded corners.
- The pans fit flush, with no or small gaps.
- The binder clips stay on, and the pans stay in place.
- One holds at least 7.5 cups to the brim, for these recipes.

Let's start with basic recipes and the process. Ingredients and equipment (*italics*) may be looked up in the later sections as you read. Other recipes are stored with this article at: [HTTPS://3NT.XYZ](https://3nt.xyz) > Ideas > Food & Drink

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White and Bran No-Knead Bread Recipes and Instructions

White	Ingredients - about 2¼ lb (1 kg) loaf	Bran
<i>Water Mix</i>		
500 g	Water (95 to 100°F)	500 g
3 g	Yeast (instant or bread machine, not active dry)	3 g
6 or 12 g	Salt (not coarse)	6 or 12 g
15 g	Sugar (granulated)	15 g
<i>Flour Mix</i>		
600 g	Bread flour	380 g
—	Whole wheat flour	150 g
—	Coarse wheat bran	70 g
<i>Coatings</i>		
Pinches	Corn Meal	Pinches

Here is my detailed plan for making any of my recipes:

Water Mix

1. Boil a quart or two of water in a *kettle*.
2. Preheat a 3-quart *proofing bowl* (if it's glass) with some of the water and dry it thoroughly (to assure accurate measurements).
3. Put 3 cups of tap water into a 1-quart glass *measuring cup*. Add boiling water to bring the temperature to 95 to 100°F.
4. Put the proofing bowl onto a *digital scale* and turn the scale on. Set units to grams. If it does not read zero (0 g), press Tare.
5. Add *water* to the specified number of grams.
6. Remove the proofing bowl and move it to the back of the counter.
7. In order, for the *yeast*, *salt*, and *sugar*:
 - a. Place a tiny bowl on the scale, press Tare, and add the ingredient to the specified grams.
 - b. Sprinkle the ingredient over the surface of the water so that it does not splash or clump.
8. Give the water mix a brief stir.

Flour Mix

9. Put a dry 2-quart bowl on the scale. For each ingredient in the flour mix:
 - a. Press Tare.
 - b. Slowly, as the readout lags behind, add the ingredient right in the middle, to the specified grams. It's easy to remove some from the top of the pile, if necessary.
10. Carefully mix the ingredients some, if more than one.

Coatings

11. If the loaf itself will be coated with seeds or such, for each ingredient, measure it in a tiny bowl, and then pour it into a small bowl for later use. Always have some corn meal handy (not mixed with other coatings).

First Proof

12. Gently add a couple of mixing spoons of the flour mix to the edge of the water, to prevent splashing. Carefully add the rest of the flour mix.
13. Stir with the handle of a *mixing spoon* until all flour is absorbed, which may require some digging. Scrape down the sides of the bowl with a *silicone scraper* so that the dough is a mound.
14. Cover the bowl with plastic wrap to keep the heat generated by the yeast inside the bowl. (Others use a dish towel.)

15. Place the bowl in an *enclosed place* with a *beer glass* full of boiling water. (Change the water every 30 or 40 minutes.) Or place the bowl in a warm place, perhaps in the sun.
16. Wash and dry the scraper and mixing spoon – keep them handy.

Second Proof

17. When the dough about doubles in size, stir it with the handle of the mixing spoon to de-gas it, and scrape down the edges of the bowl.
18. Sprinkle the bottom of a bread pan with pinches of cornmeal to prevent the loaf from sticking to the bottom, a bread disaster.
19. During this step, if we have any coatings, we need to sprinkle most of them over the bread during this process. Using the silicone scraper, carefully bring the dough mass to the edge of the proofing bowl, and then dump it into the pan.
20. Using the scraper, level the dough. Using both scraper and spoon handle, get any stuck bits of dough onto the loaf. Sprinkle and press any final coatings into the top.
21. Invert the second pan and clip it over the first. Place the assembly in our enclosed or warm place, about 40 minutes with fresh boiling water in my microwave.
22. Preheat the oven to 400°F (no fan, in a convection oven).

Bake

23. Check the bread: peer through any crack by holding it to the light or removing the lid – or go by time and your experience.
24. When the bread has risen enough, place the assembly onto a rack in the middle of the oven to bake. Set a timer for about 30 minutes.
25. Remove the lid, return the bread to the oven, and set a timer for 8 to 10 minutes, to brown the loaf.
26. If new to this, test the loaf with the digital thermometer for doneness: 190 to 200°F.
27. Immediately remove the loaf from the pan, and place it on a rack. If it sticks, use a plastic spatula to free the sides of the loaf without scarring the pan. (If the bottom sticks, dig down one end with the spatula and pry the bread out – use more corn meal next time!)

Slicing and Storage

28. When sliced warm – believe me, I have lots of experience – bread will tear some and cannot be sliced thinly. An effective plan is to cut and eat

some warm; then stand the loaf on the cut end on the cutting board, and leave it for 4 to 10 hours – then slice it thin.

29. Use a brown paper bag for initial storage. Move to plastic the next day. Refrigerate or freeze within a couple of days.

Ingredients

Salt usefully retards the yeast, acts as a preservative, and enhances the taste. Using half the salt – but no less – works well, and is healthier. Further decreasing the salt can cause bread from a standard recipe to rise higher, and possibly to fall. Bread is a high-salt food, customarily with salt in the amount of 2% of the weight of the flour (12 g for 600 g flour).

Yeast. We store our jar of Fleischmann's Bread Machine or Rapid Rise instant (not active dry) yeast on the refrigerator door. Another brand should be fine.

Water. The dough from this recipe is fairly stiff and makes a relatively dense bread. The water may be increased up to 10% or so to create an airier bread – which means it will rise higher. I did this with a loaf of rye bread, and it rose too far into the top and spilled out the gaps – still quite good, but a bit of a mess. With a pan that is expected to be full, match any increase in water, up to 5 %, with a corresponding reduction in flour. Either way, the dough will be stickier.

Bread flour. My recipes are based on King Arthur unbleached bread flour, which has 12.7% protein. When it gets wet, the two proteins in the flour combine to form gluten, which makes the dough stretchy and hold air bubbles when it rises. Beyond the protein, most of white flour is just empty calories. It does have 17 g of fiber in 600 g (our white bread loaf). The Costco near us sells King Arthur bread flour in a 10-pound bag for a great price.

Rye flour. I've just switched to King Arthur Organic Medium Rye Flour. The recipe on the bag uses 159 g rye to 210 g bread flour, or 43% rye. I have tried 33% rye in the past, but currently use 25%. Rye flour has plenty of protein, but does not form useful gluten (not to say it's gluten-free).

Whole wheat flour. Not liking the texture of whole wheat bread, I seldom use more than 25% whole wheat in any loaf. King Arthur Whole Wheat flour is 13.2% protein, but I use Wegmans milder white whole wheat. Whole wheat flour has 13 g of fiber in a cup (120 g), so our 600 g bread recipe made with 100% whole wheat would have 65 g fiber. Wheat germ contains fat that can go rancid if not stored in a cool place – we keep whole wheat flour in our standalone freezer with the nuts and seeds, which have the same problem.

Coarse wheat bran. This “soft” ingredient from Shiloh Farms has 7 g fiber in a quarter cup (16 g). It absorbs water, so when I use it, I always replace the same weight of flour. Wheat bran adds good flavor and dietary fiber, but does not contain the germ and other whole grain bits. I like to add enough to provide the fiber of 100% whole wheat bread. The bran bread recipe above uses 25% whole wheat (16 g fiber), replaces 70 g of white flour with bran (39 g fiber) and the rest white flour (11 g fiber) – a total of 66 g fiber in the flour mix. This recipe is fine, but don’t miss my seeded bread!

Bread Pans

Not in the dishwasher. With proper care, quality bread pans should provide years of service. No matter what the manufacturer says, do not put non-stick pans into the dishwasher. The conditions are harsh in there and can be expected to damage the finish or even cause it to peel off.

Maximum temperature. Stay below the manufacturer’s maximum temperature, usually 450°F. There is no need to stress the finish with heat.

Tools. If a tool is necessary, whether cooking or cleaning up, gently use plastic, nylon, or silicone, even if the manufacturer says metal is OK.

Loaf pan dimensions. When speaking of a loaf pan, the *interior* dimensions at the *top* of the pan are the important dimensions. In inches, the common sizes are 8 x 4, 8.5 x 4.5, 9 x 5, and 9.25 x 5.25. Except for long pans of about 13 inches, anything larger may be a marketer’s useless exterior size.

The interior height of the pan should range from 2.5 to 3 inches. The size of the bottom of the pan is seldom given, but subtract up to 1 inch in each direction for a pan with sides of a typical slope. Given these estimates we can estimate the maximum fluid volume of a pan.

For the pans below, measurements of length and width were taken as if their flat sides continued to a square corner (bottom) or edge (top), beyond the actual rounded corner. Except as noted, pans have tabs (handles) on the ends.

Acceptable for a PMDO

Farberware: \$13.49 (two), 9.25L x 5.25W x 2.6H (bottom 8.25 x 4.25), volume 7.5 cups, weight 385 g,
<https://www.amazon.com/Farberware-Nonstick->



[Bakeware-Bread-2-Piece/dp/Bo1BLEHWS6/](#). The raised “Farberware” logo on each end of a pan creates a 2.5 mm gap between pans, all the way around. The impact of the gap on baking can be reduced by waiting for the dough to rise past it – these are relatively low pans – just hold the assembly to the light and peer through it. I’ve been using these pans with fine results since Jan 2019. As is often the case when a marketer offers dimensions, there is an error. 8x4 is the interior *base* dimension, not the top. All shown dimensions are approximate. Ugh, \$19.99 on Black Friday, now rated #1.

KitchenAid: \$28.92 (two, in contour silver), 9L x 5W x 3H (bottom 8.15 x 4.15), volume 8.2 cups, weight 385 g, <https://www.amazon.com/KitchenAid-Nonstick-Aluminized-9x5-inch-Silver/dp/BoCJP39XBY/>. Each corner of the pan is slightly raised, causing a gap of at most 1 mm between pans, away from the corners, when clipped together (large clips are required). They look great and have the smallest gap I found, but they are pricey. \$18.68 on Black Friday.

Goodcook: \$17.52 (two), 9.5L x 5.25W x 2.65H (bottom 8.3 x 4.2), volume 7.7 cups, <https://www.amazon.com/GoodCook-Nonstick-Steel-Loaf-Gray/dp/Bo8XPSNQMF/>. Other than a set of long pans, these are the largest pans recommended by PMDO guru Steve Gamelin. I was reluctant to order them initially, because their apparent size was 9 x 5 x 2.5 – the estimated 6.6 cups was smaller than my Farberwares – and some reviewers noted problems with the finish. Each pan is stamped “9 in x 5 in” into a depression on one end tab; the other end has a raised “goodcook” logo on a non-depressed section. Mating the logo on each pan with the depression on the other pan minimizes the gap, which varies: usually 1 to 2 mm. These pans are lightweight and seem almost as sturdy as my Farberwares. Also available in a long loaf pan and a smaller, one-pound size, these Goodcook pans are viable candidates. \$14 on Black Friday.

Oxo Good Grips Pro: \$41.98 (two), 8.5L x 4.5W x 2.9H (bottom 8 x 4), volume 7.0 cups, <https://www.amazon.com/OXO-Good-Grips-Non-Stick-Loaf/dp/Bo15CQZOCA/>. These are the favorite pans of PMDO guru Steve Gamelin; he really likes the taller shape of the bread. The pans have no end tabs, but they work with binder clips. In his video, Steve held one mated end up, and no gap was discernable – but the side (hardly seen) is more likely to have a gap. The price on Amazon rose through the roof to \$48.90 for a pair, but they fell to Oxo list price – and below, for Black Friday. I’ve only seen the video, so the size is from the manufacturer and estimates. My recipes may need to be reduced for these smaller pans. \$32.02 for Black Friday.

Unacceptable for a PMDO

Wilton Advance Select: 9.25L x 5.25W x 2.5H (bottom 8.2 x 4.2), volume 7.9 cups, weight 528 g. When the pans are clipped together, the clips and pans easily slide – they don't stay flush. The “rails” around the top look flat, but they are mostly rounded. These pans are heavy, solid, and great-looking, but *unacceptable* for a PMDO.

Wilton Ultra: no end tabs, rounded edge unlikely to take binder clips.

Circulon: 9.1L x 5W x 2.7H (bottom 8 x 3.9), volume 7.1 cups. When the pans are clipped together, the clips and pans easily slide – they don't stay flush. The “rails” around the top look flat in pictures, but they are mostly rounded. Furthermore, the end tabs have a raised outer end with a raised logo on it, providing a gap of at least 3 mm, all around. These pans are solid, and great-looking, but *unacceptable* for a PMDO.

Figmint: (Target), no end tabs, only a semi-rounded edge that does not take binder clips – too bad, because the fit is flush, with no gap.

Other Equipment

Digital Scale: Karen selected the Ozeri ZK14-S, now apparently called Pronto, <https://www.amazon.com/Ozeri-ZK14-S-Digital-Multifunction-Kitchen/dp/Boo4164SRA/>, \$12.22, and it works great. My method is all about making *repeatably* great bread. While no-knead bread recipes are forgiving, we may not get repeatable results with random variations from volume measuring.

Digital instant-read thermometer: for testing water temperature, doneness of bread, grilling, and lots of other cooking activities. Ours appears to be the splashproof Classic Thermapen, \$71.20 from <https://www.thermoworks.com/> (\$62.30 Black Friday). A ThermoPro looks like a better buy for \$30 at <https://www.amazon.com/ThermoPro-Waterproof-Thermometer-Ambidextrous-Thermocouple/dp/Bo7R18W3W1/> (\$24.99 Black Friday). It will eventually get wet, so get some form of water-resistance. If you are on a budget, just stick your finger in the water – 98.6?

Kitchen timer: we have two <https://www.amazon.com/gp/product/BooooW4MYI/>, \$19.

Electric kettle: the best way to heat water quickly – we give it a workout. Ours is a Secura, \$39.07, <https://www.amazon.com/Secura-SWK-1701DBO-Stainless-Electric-Protection/dp/Bo7MQLDM67/>. Or use a whistling stovetop kettle. Don't use hot tap water, notorious for leaching bad things from pipes, in the bread – and it's only about 120°F, far from boiling.

Measuring cup: 1-quart glass measuring cup, or other vessel suitable for mixing and pouring warm water.

Bowl for proofing: 3-quart, and narrow enough that it can be covered with a square of plastic wrap. I use stainless steel, because it conducts heat better, but glass is fine. Don't use plastic – our bread will ferment in here – we don't want extra hydrocarbons in our bread!

Bowl to hold flour and other dry ingredients, 2-quart. It won't get wet, but remember to wash it anyhow, since a dusting of flour will remain.

Tiny bowls for measuring other ingredients.

Mixing spoon: wood or bamboo with no hole in the handle. We use both ends.

Silicone spatula/scrapper: symmetrical, to scrape on either side, with a straight front edge, something like this Rubbermaid.



Beer glass, Mason jar, bowl, or the water vessel above, to hold a pint of boiling water – or place a pan of water on the bottom rack, when using an oven.

Enclosed area – a microwave oven is great, but we can use the baking oven, before we preheat it.

Bread knife: [HTTPS://WWW.AMAZON.COM/Mercer-Culinary-M23210-Millennia-10-Inch/dp/B000PS1HS6/](https://www.amazon.com/Mercer-Culinary-M23210-Millennia-10-Inch/dp/B000PS1HS6/), our Mercer M23210, \$16.15, is excellent.



References:

Bittman, Mark; “The Secret of Great Bread: Let Time Do the Work,”

[HTTPS://WWW.NYTIMES.COM/2006/11/08/dining/o8mini.html](https://www.nytimes.com/2006/11/08/dining/o8mini.html), © Nov. 8, 2006, NY Times. Jim Lahey’s revolutionary approach makes superb bread in a Dutch oven – with thick crust as from an injection oven – but not a sandwich loaf. We often added dried fruit and nuts.

Gamelin, Steve; main proponent of the PMDO:

“Attributes of a Poor Man’s Dutch Oven,” part of his YouTube channel, *ArtisanBreadWithSteve*. Web site, [HTTPS://NOKNEADBREADCENTRAL.COM/](https://NOKNEADBREADCENTRAL.COM/) - he has books and recipes.

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“Bread-Pans-PMDO” spreadsheet.