ARTISAN BREAD BAKING TIPS: POOLISH & BIGA

WHAT IS IT?

THERE ARE SEVERAL TRADITIONAL METHODS FOR CREATING STARTERS FOR BREADS. ALL OF THESE STARTERS ARE EASY TO PREPARE.

A STARTER USUALLY CONSISTS OF A SIMPLE MIXTURE OF WHEAT FLOUR, WATER, AND A LEAVENING AGENT (TYPICALLY YEAST OR A SOURDOUGH CULTURE). AFTER MIXING IT IS ALLOWED TO FERMENT FOR A PERIOD OF TIME, AND THEN IS ADDED TO BREAD DOUGH AS A SUBSTITUTE FOR, OR IN ADDITION TO MORE YEAST. SO PRE-FERMENTS ARE CRITICAL FOR BEST TASTING BREAD – YOU CAN CALL IT A STARTER, BIGA, POOLISH, PREFERMENT, OR SPONGE – THEY ALL DO THE SAME JOB, WATER CONTENT IS THE MAIN DIFFERENCE BETWEEN EACH OF THE PRE-FERMENTS.

BIGA IS THE ITALIAN NAME FOR A PRE-FERMENT AND POOLISH IS THE TERM USED IN FRENCH BREAD RECIPES. SPONGES ARE MADE WITH DOMESTIC BAKER’S YEAST. POOLISH IS A FAIRLY WET SPONGE (TYPICALLY MADE WITH A ONE-PART-FLOUR-TO-ONE-PART-WATER RATIO BY WEIGHT), WHILE BIGA IS USUALLY DRIER. BIGAS CAN BE HELD LONGER AT THEIR PEAK THAN WETTER SPONGES.
WHY USE IT?
The primary difference between making bread with a starter and making bread with the direct or straight yeast method is that starter breads require much more time to prepare, but the flavor and texture of the bread is almost impossible to achieve with other leavening methods. Bread made with starters like poolish and biga also tends to keep better, compared to bread made from straight doughs.

Schedule for making Poolish
Poolish up to 8 hours in advance – 0.23% – 0.33%
Poolish up to 12 hours in advance – 0.1% – 0.2%
Poolish up to 16 hours in advance – 0.03% – 0.08%
TIP: We use the smaller amount in summer when conditions are warmer, and the second, slightly bigger amount in winter.

CALCULATING THE RIGHT AMOUNT OF YEAST
example – How to calculate the right amount of yeast
I make a poolish consisting of 200 g flour and 200 g water. It should be made 12 hours in advance (typically the night before the morning of baking) and it is summer or a nice warm room temperature for the poolish to ferment in. When calculating the amount of instant yeast needed in the pre-ferment use the following formula: 200 g (amount of flour) x 0.1% (yeast amount used in summer for 12 hour poolish) = 200 / 100 x 0.1 = 0.2 g yeast (for fresh yeast multiply the amount by 3).

TIPS FOR WORKING WITH POOLISH AND BIGA
when working with pre-fermented doughs like poolish or biga make sure not to 'over ripen,' allow the pre-ferment to sit for too long. This is especially true when using larger percentages of preferment is used in the final dough (think up to 50%) because over fermenting will kill the gluten in the preferment (the yeast will eat them all) and the dough will end up being weaker and hard to handle.

Using a higher percentage of pre-ferment in the final dough will create bread with a nice chewy texture. The sugars that are released from the flour in the pre-ferment also add a nice golden color to your bread crust.

The same recipe can be used whether using a biga or polish, just adjust the flour and water added to the dough. If using a poolish more flour will be needed and less water. If a biga is used in place of a poolish the recipe may require more water and/or less flour.

A pre-ferment, poolish or biga can be made from the same type of flour used in the final bread dough or a different type of flour may be used in the poolish and final dough. For example, I use high protein flour in the pre-ferment and all purpose flour in the final dough to add flavor and variety. Sometimes to add variety I use whole wheat flour to add extra (and different) flavors to my bread.

Percentage of instant dry yeast in poolish
You can prepare your poolish up to 8 hours but also up to 16 hours in advance. But you have to adjust the amount of instant dry yeast you use. Logically, the more time a pre-ferment gets, the less yeast you have to use.
1. What is a polish

2. What is the primary difference between making bread with a starter and making bread with the direct or straight yeast method?

3. Why would you use a smaller amount of yeast in your polish during warm weather?

4. Calculate the correct amount of yeast for a polish using 450 grams of flour. If the polish is made during the summer and the weather is warm. You want your polish to ferment for 16 hours. How much yeast would you use for this polish? (Hint: use the schedule for polish oh page 2)

5. What happens when a polish or big is allowed to over ripen?

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What does 0.1 gram of yeast look like?

To give you an idea of how tiny the amount of 0.1 gram of instant dry yeast is we have made some pictures. The third picture shows 0.1 grams of yeast in a teaspoon, the last picture shows 0.1 grams of yeast in a 1/4 teaspoon.

*Tip:* As the amounts used are tiny, especially when baking just one loaf of bread, a precision scale for measuring is something worth considering.
**RECIPE FOR CIABATTA**

**RECIPE FROM KING ARTHUR FLOUR**

Ingredients for the Poolish

- 250 g bread flour
- 250 g water
- 0.1 g instant yeast (see pictures)

This preferment is called a poolish and has equal parts of water and flour. In a bowl stir together 250 grams bread flour with 250 grams cold water and 0.1 gram instant dry yeast. We use a precision scale to measure the 0.1 gram but to give you a good indication of how tiny this amount is we made some pictures (see gallery above). Mix it until you have a consistency that looks like a very thick batter. Cover the bowl and leave for 12 hours at room temperature. So if you want to begin your bread making in the morning, you can make your poolish the evening before.

**CIABATTA BREAD**

Poolish (500 g)

- 280 g bread flour
- 200 g water
- 8 g salt
- 7 g instant yeast

Tip: You can also use your trusty hand mixer with dough hooks attached to make this dough, so for those of you who do not own a KitchenAid you can still go ahead and make this beautiful dough.

Attach the dough hook to your KitchenAid type mixer and combine the ingredients until you have a shaggy mass (30 seconds to 1 minute). Let it rest for 10 minutes.

Now comes the fun part. Start mixing at speed 6. First your dough will look like pancake batter with some gluten but after about 3 to 5 minutes of kneading (so way shorter than the original recipe’s 10 to 30 minutes) the complete dough ball should stick to the dough hook and be separated from the sides, hardly touching the bowl anymore, even separating from the bottom from time to time.

When this happens you can make a wonderful ‘windowpane’ with your dough, as demonstrated in the picture.

Place the dough in a bowl sprayed with oil, cover with saran wrap and place in the refrigerator overnight.

Prepare your baking tray (about 30 x 40 cm / 12 x 16 inches) by lining it with a baking sheet or baking parchment and lightly spray or coat it with some oil.

The next morning remove the bowl from the refrigerator, shape the dough into loaves or small squares for individual paninis, place on baking sheet and let it rest for 120 minutes in a warm place, provided the temperature of your dough is around 24ºC / 75ºF.

For one large loaf of Ciabatta, spread out the gloopy dough on the baking tray (wetting or oiling your fingers will help) making sure to evenly distribute it into the corners.

During this period this dough really increases in size, more so than with your regular bread dough. After this period it should look very wobbly with lots of air, but it should not collapse of course.

Preheat your oven at 230ºC / 445ºF. Bake the loaves for approximately 20 minutes until they are golden brown.
**Italian Ciabatta Bread**

Ciabatta was first produced in 1982 by Arnaldo Cavallari, a baker and miller from Adria, a small town close to Venice in Veneto.

Cavallari called the bread ciabatta Polesano after Polesine, the area he lived in, and registered it as a trademark. The recipe was subsequently licensed by Cavallari’s company, Molini Adriesi, to bakers in 11 countries by 1999.

Many regions have their own variations on the original recipe or a bread which closely resembles ciabatta, and which has become accepted as a variety of ciabatta; the ciabatta from the area encompassing Lake Como has a crisp crust, a somewhat soft, porous texture, and is light to the touch. The ciabatta found in Tuscany, Umbria, and Marche varies from bread that has a firm crust and dense crumb, to bread that has a crisper crust and more open texture, and in Rome, it is often seasoned with marjoram.

New variations of the recipe continue to be developed. Whole meal ciabatta are known as ciabatta integrale, and when milk is added to the dough, it becomes ciabatta al latte.

Francesco Favaron of Pan Technology maintains that he personally invented this bread. Pan Technology is a private school devoted to bread, pizza, and pastry, that is located in the Veneto region of Italy. Mr. Favaron states that he developed ciabatta in the 1960s by experimenting for two years when working in the city of Milan. The manual produced by Pan Technology includes 1028 formulae for Italian regional breads, one of which, it is claimed, is the “original” ciabatta formula. Cavallari and other bakers in Italy were concerned by the popularity of sandwiches made from baguettes imported from France, which were endangering their businesses, so set about trying to create an Italian alternative with which to make sandwiches. The recipe for ciabatta came about after several weeks trying variations of traditional bread recipes, and consists of a soft, wet dough made with high gluten flour.

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**1. Who invented ciabatta bread?**

**2. What year did ciabatta first appear?**

**3. Ciabatta first appeared in Veneto, how are the breads from different regions of Italy different than the original ciabatta bread?**
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1. What is a poolish

Biga and poolish are terms for pre-ferments used in Italian and French baking, respectively, for sponges made with domestic baker’s yeast. Poolish is a fairly wet sponge (typically made with a one-part-flour-to-one-part-water ratio by weight), while biga is usually drier. Bigas can be held longer at their peak than wetter sponges.

2. What is the primary difference between making bread with a starter and making bread with the direct or straight yeast method?

Bread made with a starter requires prefermenting yeast, flour, and water. A dough made with the direct or straight yeast method ferments the yeast during the proofing process. Prefermented dough and poolish, sponge, and biga preferments can improve bread quality naturally and traditionally. Learn how they differ and how to incorporate them into your production.

3. Why would you use a smaller amount of yeast in your poolish during warm weather?

A smaller amount of yeast is used during warmer months because the yeast will grow more quickly in warmer temperatures.

4. Calculate the correct amount of yeast for a poolish using 450 grams of flour. If the poolish is made during the summer and the weather is warm. You want your poolish to ferment for 16 hours. How much yeast would you use for this poolish? (Hint: use the schedule for poolish on page 2)

\[ 450 \, \text{g of flour} \times 0.03\% = 0.135 \, \text{grams of yeast} \]

5. What happens when a poolish or big is allowed to over ripen?

Because over ripening will kill the gluten in your preferment (the yeast will eat them all) and you will end up with a weaker and hard to handle dough.
Ciabatta, means of shoe or slipper bread, is an Italian white bread made from wheat flour, water, salt, olive oil, and yeast, created in 1982 by a baker in Adria, Veneto, Italy, in response to popularity of French baguettes. Ciabatta is somewhat elongated, broad, and flat, and is baked in many variations.

While panino indicates any kind of sandwich regardless of the bread used (whether slices or a bun), a toasted sandwich made from small loaves of ciabatta is specifically known as a panini (plural of panino) outside of Italy.

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**Adding Toppings to Your Ciabatta Bread**

Ingredients for the topping:
- 24 ripe mini tomatoes, halved
- 1 large thinly sliced white onion
- About 3 tbsps olive oil
- A handful of fresh basil leaves
- Sea salt flakes and black pepper to taste

You can shred the basil leaves and mix them in with the oil before rubbing it on the surface of the dough. With your fingertips, make indentations all over the surface, making sure the lovely oil also drips into the dents.

Let it proof for another 30 minutes.

Note: We like to add ingredients like the tomatoes before the final proofing, so they become ‘encapsulated’ during the proofing and stay nice and juicy during baking too.

Bake in the preheated oven for 20 minutes, until golden brown. Brush with some more olive oil if you feel like it. Leave to cool ever so slightly then take your pizza cutter and attack.