



# Pumpernickel Whole Grain Pretzel Sticks

Scaled for Custom scale • Target dough: 1,908 g • Hydration: 30%

## Ingredients

- 120 g extra virgin olive oil
- 160 g molasses
- 240 g water, cold
- 400 g wheat berries, hard
- 400 g berries, rye
- 50 g cocoa powder
- 10 g caraway, seeds
- 0 g onion, powder (1 tsp onion powder)
- 0 g garlic, powder (1 tsp garlic powder)
- 24 g baking powder (1/2 tbsp)
- 24 g sea salt
- Baking Soda Spray (Wash):
- 0 g baking soda (1 tbsp baking soda)
- 480 g water, cold (1 cup water)
- Topping Pretzels:
- 0 g salt, pretzel (coarse) (to taste)
- Ranch Dressing:
- 0 g cream, sour (1/4 cup sour cream (or homemade mayo))
- 0 g yogurt (1/4 cup)
- 0 g garlic, cloves (minced) (1-2 cloves garlic (minced))
- 0 g chives, fresh (2 tablespoons fresh chives (finely chopped))
- 0 g parsley, fresh (1 tablespoon fresh parsley (finely chopped))
- 0 g dill, fresh (1 tablespoon fresh dill (finely chopped (or 1 teaspoon dried dill)))
- 0 g lemon, juice (1 tablespoon fresh lemon juice)
- 0 g onion, powder (1/4 teaspoon onion powder)
- 0 g sea salt (Salt and freshly ground black pepper (to taste))

## Directions

1. Mill the grains into flour.
2. Preheat oven to 450 F convection
3. Add baking powder, salt, cocoa, garlic and onion powder to the flour
4. Measure the remaining ingredients (olive oil, sweetener, and water) into a small measuring cup or jar, mixing to combine.
5. Extruding Pretzel Dough:
6. Remove the front face of the extruder, and place the Grissini die into the adapter for your pasta maker, attaching it to the extruder. Put the pasta machine back together.
7. Add the dry mixture to the mixing container of your pasta extruder
8. Turn on your pasta extruder and pick the larger batch size. Press the Play button.
9. Add the wet mixture through the well on the top lid, which lets the ingredients slowly mix together.

10. Optional: Once the extruder stops and changes direction, turn off the machine and then turn it back on again. Select the big batch size, and press the play button.
11. As the dough extrudes, cut the dough to the length you prefer.
12. Set the dough on a parchment lined tray, with space between the pretzel sticks. If they are curled at the ends, gently roll them on the pan and they will straighten out.
13. Baking Soda Wash:
14. Mix together the water and baking soda in a spray bottle.
15. Heavily mist the pretzel dough until it is wet on top. Sprinkle the top with pretzel salt or coarse sea salt. Alternatively, you could use a pastry brush and heavily brush the tops with baking soda - but a sprayer will work best.
16. Place the sheet into the oven, and bake for 8 minutes or until as dark as you like. If baking directly on a preheated baking stone, lower the cook time to 5 minutes.
17. They will harden slightly as they cool (but will soften if you put them into a container or bag unless you dehydrate them to take out the excess water).
18. Stay Crunchy Pretzels:
19. Dehydrate the pretzel rods at 125 F for a few hours until crunchy when you snap it in half. I put mine in around 2:30 pm and when I got home around 7 pm they were crispy.
20. Store in a plastic bag until ready to eat. These should keep for several weeks if you dehydrated them until fully dry - but they won't last!
21. Homemade Ranch Dressing:
22. Add ingredients to a bowl, and use whisk or emulsion blender to combine into dressing. Thin out with vinegar or water, if needed.

## Notes