



Hydration Calculation Guide

You don't *need* to calculate the hydration rate or your dough to make amazing bread at home, you can completely do it without knowing *any* of the calculations below but if you're mathematically minded, if calculations bring you joy, if this is an area that you are curious about then here are the Hydration Calculations in one easy place.

Basic Hydration Calculation

This is the most straight forward calculation which will reward you with the water content of your recipe in relation to the amount of flour as a percentage.

$$(\text{Water (g) / Flour (g)}) \times 100 = \text{Hydration Percentage}$$

For example, here are the ingredients from your [Simple Loaf Recipe](#):

640g Room temperature water

24g Fresh yeast or 14g dry yeast

1000g Strong white bread flour

16g Salt

30g Olive Oil

And here is the hydration calculation:

$$(640 \text{ Water} / 1000 \text{ Flour}) \times 100 = 64$$

The hydration is 64%

Sourdough Hydration

For sourdough things are a little different because within the recipe there will always be a proportion of starter to be accounted for. All you need to do here is break down your starter into flour and water quantities and add them to the flour and water in the recipe to make sure you are calculating the hydration of the entirety of the recipe. The formula then remains the same.

For example, here are the ingredients from your [Sourdough Loaf for Beginners Recipe](#):

100g Excited sourdough starter

450g Strong white bread flour

310g Room temperature water

8g Salt

First you divide the starter into it's components. Mine is *always* half flour and half water:

50g Flour

50g Water

Then add those quantities to the rest of the ingredients in the recipe to get the totals:

$450 + 50 = 500\text{g Flour}$

$310 + 50 = 360\text{g Water}$

And then continue your calculation:

$(360 \text{ Water} / 500 \text{ Flour}) \times 100 = 72$

The hydration is 72%

Calculating Hydration Backwards

In this case you might have a specific hydration that you'd *like* to aim for, say 68%. You know how much flour you want to use, and you need to know how much water you need to arrive at that particular hydration. Here's what you do:

$$\text{(Desired Hydration / 100) x Flour (g) = Water Quantity (g)}$$

So then, for example if you're making two loaves you'll likely need 1000g of flour, and if you're aiming for 68% Hydration the calculation would look like this:

$$(68 / 100) \times 1000 = 680$$

You'll need 680g of water to reach your desired hydration of 68%

Hope that makes sense, I thought it might be handy to have these all on one page for you for your reference!

Other Hydration related resources you might find interesting:

[Bread Tip 43 - What is a Bakers Percentage?](#)

[Bread Tip 54 - What's the perfect hydration rate?](#)

[Bread Tip 140 - How to Calculate SOURDOUGH Hydration](#)

[Bread Tip 141 – What to Include in your Hydration Calculation](#)