# Flour in Japan

Hakurikiko (薄力粉) - Weak flour/soft flour (cake flour) - This is for baking cakes and biscuits and for general use. Low viscosity and protein content (less than 8.5%). Fine texture, gives cakes more tender texture.

**Violet** (バイオレット) Premium quality, finer texture.

**Kyoryokuko (**強力粉) - Strong flour - Bread making. High in protein content (more than 12%)

#### **Other varieties:**

**Chuurikiko (**中力粉) - Medium strength flour - This is used for udon making, takoyaki & okonomiyaki. It has about 9% protein strength.



動力料





Zenryufun (全粒粉) - Whole wheat flour. (\*See Tomiz below)



# Flour Mixed with Other Ingredients

## Okonomiyaki-ko (お好み焼き粉)



For making okonomiyaki

For making takoyaki

### Takoyaki-ko (たこ焼き粉)



Hotto keiki mikkusu (ホットケーキミックス)



### Tempura-ko (天ぷら粉)



For making pancakes

For making tempura

#### How to make self-rising flour:

Use Hakurikiko (weak flour). Add 1 tsp of baking powder to each cup (Japanese 1 C = 200ml) of Hakurikiko. For US recipe add 1/4 teaspoon salt.

#### Substitute for cake flour

1 cup cake flour = 100 g all-purpose flour + 2 T cornstarch



# **Working with Whole Wheat Flour**

In Japan, whole wheat flour is known as 全粒粉 (zenryufun). It's availa ble in several varieties, each suited to different baking needs:

 Whole-Wheat Pastry Flour (お菓子用全粒 粉, okashiyō zenryufun): This softer wholewheat flour has a lower gluten content (around 10%) and is ideal for pastries and delicate baked goods.



• Whole-Wheat Bread Flour (パン用全粒粉, panyō zenryufun): With a higher gluten content (approximately 13%), this flour is perfect for baking breads and other yeast-leavened products.

Additionally, graham flour (グラハム粉, gurahamuko), a coarser type of whole wheat flour, is available for recipes requiring a heartier texture.



To incorporate whole wheat flour while maintaining a good rise and texture, consider the following adjustments:

#### **Substitution Amount**

• Start with 25–50% Whole Wheat Flour: Substitute 25–50% of the bread flour (approximately 98–195 g) with whole wheat flour. Whole wheat flour absorbs more water and is heavier, so starting conservatively ensures you don't compromise the bread's structure.

#### Adjustments to the Recipe

- 1. **Increase Hydration:** Whole wheat flour absorbs more water. Add an extra 5–10% water by weight to account for this (approximately 18–36 g additional water). Add the water gradually during mixing to avoid overhydrating.
- Mixing and Resting: Mix the dough a bit longer (2–3 minutes) to help develop the gluten in the whole wheat flour. You can also include an *autolyze step* (letting the flour and water sit together for 20–30 minutes before adding salt, yeast, and oil) to improve hydration and gluten development.
- 3. **Longer Rising Time:** Whole wheat dough may take longer to rise due to the heavier bran content. Allow an extra 15–30 minutes for the first and second rises if needed.
- 4. Add Vital Wheat Gluten\* (Optional): Adding 1–2 teaspoons (4–8 g) of vital wheat gluten can help improve the structure and rise, especially if you go beyond 50% whole wheat.

5. **Optional Sweetener:** A touch more sugar (an additional 2–3 g) can help balance the slightly bitter flavor of whole wheat and feed the yeast.

#### **Notes on Texture and Flavor**

• Whole wheat focaccia will have a denser crumb and nuttier flavor compared to the original version. If you want a softer texture, stick closer to 25% substitution. For a robust whole wheat flavor, you can push to 50%.

#### **Testing Higher Substitutions**

If the 50% substitution works well, experiment with going up to 75–100%, but significant adjustments (hydration, rise time, and gluten development) will be necessary to maintain the bread's integrity.

#### \*What is vital wheat gluten?

Vital wheat gluten is a concentrated protein extracted from wheat. It's made by hydrating wheat flour to activate the gluten (the protein responsible for elasticity in dough) and then removing everything else, such as starches. The remaining gluten is then dried and ground into a powder.

#### How It Works

- **Boosts Gluten Strength:** Adding variable wheat gluten to a dough increases its elasticity and structure, which helps it trap more gas produced by yeast during fermentation. This is especially useful in doughs with weaker gluten, like those made with whole wheat, rye, or low-protein flours.
- **Improves Rise:** It counteracts the heavier texture of whole wheat flour by creating a more robust dough structure.
- Enhances Chewiness: It contributes to a slightly chewier texture, which is desirable in breads like focaccia, bagels, and artisan loaves.

#### How to Use It

- Amount: Use about 1–2 teaspoons (4–8 grams) per cup (120–140 grams) of flour in recipes where you want to improve elasticity or rise.
- **Mixing:** Simply add it to your dry ingredients before mixing the dough.

#### **Availability**

Vital wheat gluten is available online; brands like **Bob's Red Mill**. (available from iHerb)

#### Considerations

- Allergen: It's pure gluten, so it's unsuitable for people with gluten intolerance or celiac disease.
- Flavor Impact: It has a neutral flavor and won't alter the taste of your bread.

Incorporating it into your whole wheat focaccia recipe will help counterbalance the density of whole wheat flour and give you a lighter, more airy bread.

#### Vital wheat gluten in Japan?

Vital wheat gluten (often referred to as グルテンパウダー or 小麦グルテン in Japanese) is available in Japan, though it might not be as common as in some Western countries. Here are a few ways to find it:

#### Where to Look

- 1. Online Stores:
  - <u>Amazon Japan: Search for "グルテンパウダー" or "小麦グルテン</u>." Several brands, both domestic and imported, are usually available.
  - <u>Rakuten</u>: Often carries specialty baking ingredients, including vital wheat gluten.
  - iHerb: Ships to Japan and carries brands like Bob's Red Mill.

#### 2. Specialty Baking or Health Food Stores:

- Check stores like <u>Tomizawa Shoten (富澤商店</u>), which specializes in baking supplies and may carry vital wheat gluten in some locations or online.
- <u>Kaldi Coffee Farm</u> or <u>Natural House</u> might also stock it in the health food or baking sections.
- 3. Bulk or Imported Food Stores:
  - Stores like <u>Costco Japan</u> may have it in bulk, especially from American brands.

Key Japanese Terms to Search For

- グルテンパウダー (Gluten Powder)
- <u>小麦グルテン (Wheat Gluten)</u>