



## Sifting Through the Possibilities for Almond Flour

Did you know that in France, pastry chefs can purchase premade packages of a product called tant pour tant? The name, which means "equal parts of," is a blend of equal parts powdered sugar and blanched almond flour. This sweetened almond flour is central to classic French treats like madeleines, financier, dacquoise, joconde cakes and, of course, the colorful macarons that've taken America by storm.

Almond flour itself may not have taken America by storm just yet, but Priscilla Martel, a Connecticut-based chef, educator and food writer with a special interest in artisan baking, thinks it's high time it does. "In Europe, pastry chefs don't even think about almond flour as something unusual," Martel says. "It's just a core ingredient they use every day. Now, it's starting to become a more common ingredient for developers in the US, too." With today's modern diet, almonds have become a go-to for gluten-free cooking and almond flour is a great solution for manufacturers.

So, with almond flour becoming increasingly popular in the US, we sat down with Martel to find out what makes it so special—and so indispensable to the savvy baker.

Let's begin by defining what almond flour is, and how it's made.

- What's a classic application for fine almond flour?
- Wise counsel. I'll try that, myself. Can you share an example of where a coarser almond flour would make a good fit?

**CHEF MARTEL** | Basically, almond flour is ground almonds, and can come in a range of forms and grind sizes depending on the manufacturer. To make almond flour, manufacturers will either grind the "sift-outs" from processed nuts like blanched, sliced or slivered almonds, or they'll grind whole nuts with the skin on. Skin-on almonds will result in a browner almond flour, while blanched almond flour is more uniformly ivory. Some machines shave the nuts into a fine flour, where others perform more of a grinding process. Products labeled almond meal tend to be coarser than products labeled almond flour.

**CHEF MARTEL** | The finest almond flour is what you absolutely need to make a French macaron—because one of the distinguishing characteristics of a French macaron is that the surface be shiny and smooth. An almond flour with any texture at all will give your macarons a pebbly surface, so some pastry chefs will sift their almond flour before using.

**CHEF MARTEL** I When I'm making something more rustic—like a crust, for instance—I'll consider using a natural almond flour first, made from almonds with the skin on, which gives it a little bit of speckle. Also, for something with a more rugged appearance and texture, like a breakfast or energy bar, a healthy muffin or even a cracker, a coarser natural almond flour may work. Be sure to keep in mind that when working with almond meal it'll give the baked item a more pronounced mouthfeel and texture on the tongue. You'll feel a delicate pebbly texture and a slight crunch when you chew.



With so many consumers looking for gluten-free baked goods, how can developers deploy almond flour to meet their needs?

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**CHEF MARTEL** | I always tell bakers that almond flour can be a wonderful solution in gluten-free formulas. With almond flour, you're dealing with a gluten-free ingredient with a smooth texture, so it's not gritty like some of the starchier wheat flour alternatives. It can bind water, even though it doesn't have the protein content of wheat flour, and also has an advantage because so many gluten-free flour blends are often high in starch from soy or corn. Almond flour is an all-natural, "free-from" ingredient, and it has the delicious flavor of almonds.

Tell us about some gluten-free applications where you've used almond flour.

Almond flour may be a handy gluten-free substitute for wheat flour—but it's not wheat flour. How does it perform differently, and how should formulators account for those differences?

You mentioned that almonds' characteristic flavor and aroma are it's key assets, but do you ever season almond flour to give it a flavor twist?

Beyond baking, where else do you use almond flour? **CHEF MARTEL** | I've had great success using almond flour in egg-foam preparations, like chiffon cake and carrot cake, by swapping out all the wheat flour. Brownie and blondie batters can be prepared with a high percentage of almond flour because many fudge-like brownies are close to a baked mousse. If you're looking for a more cake-like brownie, add some rice and another gluten-free flour or blend.

**CHEF MARTEL** | Almonds don't have the same proteins found in wheat flour and other grains, so product developers need to work with blends of gluten-free flours, starches and gums to recreate the taste and texture of wheat-based formulas. Almonds will tenderize a mixture; I find I can swap out as much as 25 to 30 percent of the wheat flour in any batter—like pancake—with almond flour and get a more tender product. So that's where I start when I'm analyzing where I want to apply it.

And if you're working on something like a multigrain sandwich loaf where you want it tender enough to bite easily or to toast, you'll need a mix of ingredients—and almond flour is the secret weapon. Adding a small amount of almond flour, which is high in protein, helps retain moisture and tenderizes the final product. It also adds the aroma and flavor of toasted almonds to the bread once the loaf is baked. That said, expect some loss of volume compared with the same formula made with wheat flour.

**CHEF MARTEL** | There are some common flavorings I use with almond flour: matcha powder, herbs de Provence, a baking-spice blend of allspice, cinnamon and cardamom, and powdered rose petals for a delicate note. When adding seasonings or flavorings to almond flour, you want to add them in first to evenly distribute the seasonings before using it. I like to run the flour and seasonings through a food processor to get the dry, powdered flavoring element truly worked into the flour beforehand.

**CHEF MARTEL** | I use almond flour as an absorbent layer and moisture barrier when baking pizza or vegetable and fruit tarts. And it's fantastic for breading, or in a batter for panfrying or deep-frying—either all almond flour or cornmeal plus almond flour to give it that extra-hard crunch. That's fantastic.

I've seen almond flour used well even in soft desserts like sweet or savory custard and panna cotta. And don't forget bars – energy bar formulas that contain almond flour don't need as much fluid oil. When you're making an energy bar, you really get the reinforcement of that "bran" color from a natural almond flour. Best of all, the almond flavor always comes through.

