



Egg salad sandwich on Ultragrain HP pan bread



Artisan breads made with 100% Ultragrain HP

Ultragrain[®] High Performance

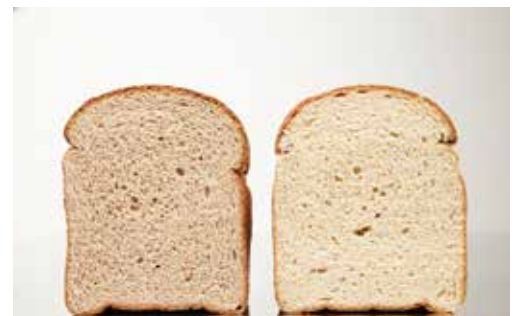
the next generation of whole wheat flour

The next thing in whole grains is here. Ardent Mills continues to lead industry innovation with Ultragrain HP, the cutting-edge addition to our Ultragrain family of flours. But Ultragrain HP isn't just a new flour. It's the first in a generation of flours with baking advantages like stronger gluten, higher absorption and improved manufacturing performance, resulting in lower formulation costs.

We start with a premium seed, milling Ultragrain HP from a wheat variety cultivated exclusively for Ardent Mills for unprecedented functionality and baking performance. Ultragrain HP is an innovative combination of thoughtful wheat selection, farmer collaboration and our patented milling approach. This results in all-natural flour with unique properties to tackle the most pressing cost and operational issues in baking today.

With the smooth texture, light color and mainstream taste that can only be found in the Ultragrain family of flours, Ultragrain HP gives you the best of all worlds: unbeatable functionality, proven nutrition and irresistible sensory appeal.

Breads made with Ultragrain HP can reduce your added gluten requirement by 50% or more compared to traditional whole wheat flour for the same loaf volume and performance.



Breads on left are made with traditional red wheat and 8% vital wheat gluten.

Breads on right are made with 100% Ultragrain HP and 4% vital wheat gluten. Absorption is 6% higher.

Groundbreaking from the Ground Up

What makes Ultragrain HP so groundbreaking? It's all a matter of growing the right wheat. Ultragrain HP is milled from a premium all-natural wheat variety exclusive to Ardent Mills. Specially selected for its phenomenal gluten strength and water absorption, Ultragrain HP's traits are essential for today's demanding bread bakeries. The result: Ultragrain HP lowers costs while improving yield, dough-mixing properties and baking performance unlike any whole wheat flour you've worked with. Increase the performance of your bread operation with Ultragrain HP:

- > **REDUCE YOUR ADDED GLUTEN REQUIREMENT BY 50% OR MORE.** Because Ultragrain HP's gluten is naturally stronger than other varieties of whole wheat flour, it lets you reduce the percentage of vital wheat gluten you add to formulations, lowering costs while improving baking performance, finished-product volume and yield.
- > **ULTRAGRAIN HP ABSORPTION IS 3%–4% HIGHER THAN TRADITIONAL WHOLE WHEATS AND 8%–12% MORE THAN REFINED FLOUR.** Ultragrain HP utilizes water more effectively than other whole wheat flours, reducing costs and improving texture.
- > **ULTRAGRAIN HP HAS A GREATER MIX TOLERANCE.** The superior gluten creates a bigger mixing window for optimum dough development.
- > **CLEANER LABELS.** Whole wheat bread made with Ultragrain HP may not require vital wheat gluten, oxidants or dough conditioners, resulting in a cleaner ingredient list.

Performance where **you need it most**

Put Ultragrain HP to work in any whole wheat bakery application that needs additional gluten strength or higher absorption—while reducing or eliminating the costs from added vital wheat gluten. Ideal applications include:

- > **Pan breads**
- > **Hearth breads**
- > **Bagels**
- > **Hot dog/hamburger buns**
- > **Frozen dough**
- > **Par baked**

Unparalleled performance that **will surprise you**

Ultragrain HP is such a breakthrough in whole wheat flour performance that you've never made bread with flour like it before. Its absorption properties and performance profile will surprise you. Ultragrain HP will absorb more water, so hydration time will be slightly longer, and the mixing process will be different, with a much higher mixing tolerance. The Ardent Mills technical bakers are here to work with you every step of the way to ensure that you capture all of the benefits of Ultragrain HP.



Watch a video demonstration of Ultragrain HP hydration and mixing at [YouTube.com/ardentmills](https://www.youtube.com/ardentmills)



Vegetarian banh mi on a 51% Ultragrain HP French baguette

Whole Grain Nutrition, Mainstream Appeal



Sundried tomato and basil grilled cheese sandwich on 100% Ultragrain HP pan bread

With Ultragrain HP, your customers will enjoy all-natural whole wheat bread with white flour appeal, and your operation will book the cost savings:

- > **Smooth texture:** Ultragrain breads have a smooth, soft crumb and no visual bran specks.
- > **Mild, whole grain flavor:** Like our other Ultragrain products, the wheat milled into Ultragrain HP is specially selected to appeal to the taste preferences of consumers who prefer the mild flavor of white bread.
- > **Whole grain nutrition:** Thanks to patented milling, the Ultragrain flour family has all the fiber, vitamins and minerals naturally present in whole wheat bran and germ, but with the smooth texture of white flour.

Grower Commitment to Performance

Ardent Mills pays a premium above wheat market prices to compensate farmers for the extra care required to meet Ultragrain quality standards. The Ultragrain premium program encourages farm-to-table transparency, consistency of crop and preservation of varietal identity. Our grower partners help ensure that Ultragrain HP delivers the same baking functionality and sensory traits from one harvest to the next. At harvest, Ultragrain farmers deliver the wheat to select local grain elevators with exclusive storage facilities.

The Ultragrain family of flours

Since its launch in 2004, Ultragrain brand flours have revolutionized the food industry, helping usher in an era of increased whole grain consumption and opening up brand new categories to the benefits of whole grains. Today, there's an Ultragrain flour or blend available to help you add whole grain nutrition to any application:



- > **Ultragrain HP** delivers phenomenal gluten strength and water absorption, reducing your product's cost while maintaining its mainstream appeal.
- > **Ultragrain Hard** delivers 100% whole grain nutrition with the taste, texture and appearance of refined white flour—for breads, pizzas, pastas and more.
- > **Ultragrain Soft** is ideal for cakes, cookies, crackers and pastries.
- > **Ultragrain All-Purpose Flour T-1** with 30% Ultragrain and 70% premium enriched Kyrol® white flour provides a 1:1 replacement for traditional all-purpose flour.
- > **Ultragrain All-Purpose Flour T-2** with 55% Ultragrain and 45% premium enriched Kyrol white flour provides an easy transition to even higher levels of whole grain.
- > **Custom Ultragrain blends** are available. We blend Ultragrain flour with refined flour to meet your product and operational requirements. We can also custom blend Ultragrain flour with ultra-high fiber Sustagrain®, Ardent Mills Ancient Grains or our ingredients per your specifications.



Technical Specifications

Physical Properties: This product is dry, free-flowing powder. It is light tan in color. It will have no off odors or flavors. Granulation: 98% minimum passing through a No. 70 wire.

Description: Ultragrain High Performance whole wheat flour is the food prepared in the grinding and bolting of cleaned white hard wheat according to U.S. patents 7,419,694; 7,425,344; and 8,017,172. Ultragrain High Performance whole wheat flour contains the bran, germ and endosperm in the same proportions as in the intact kernels from which it was processed. This product is produced in accordance with good manufacturing practices and all applicable FDA regulations as amended.

Ingredients Declaration Options:

- i. Ingredients: whole wheat flour (Ultragrain)
- ii. Ingredients: whole wheat flour
- iii. Ingredients: whole grain wheat flour

Storage and Food Safety Instructions: Store in a clean, cool and dry area away from spices and other aromatic materials. Recommended storage conditions are <75 degrees F and <50% humidity. Flour is a raw agricultural product and must be thoroughly cooked before eating.

Shelf Life: 90 days at recommended storage conditions and good sanitary practices. Best if used within 60 days.

Allergen Information: Contains wheat.

Sifting: Product is sifted prior to packing (bag) or loading (bulk).

Bag Code Identification: Ardent Mills codes all bagged flour. Each bag is identified with the origin mill, month, day, year and shift packed.

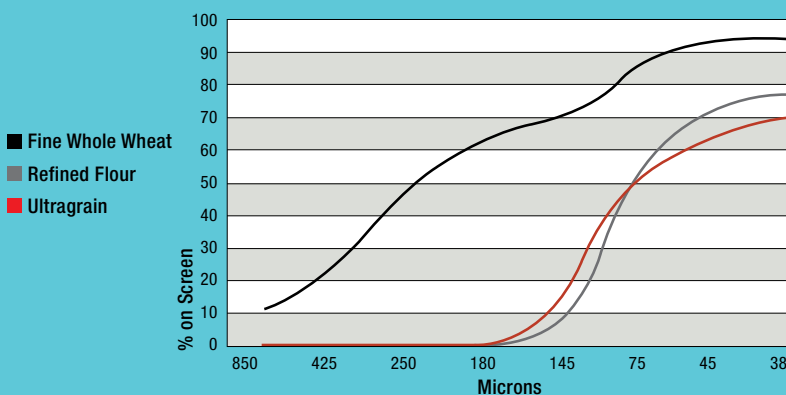
Kosher Status:  Parve, KOF-K Kosher Supervision.

Packaging: Available in bulk or bags for industrial wholesale manufacturers.

Information and Services: For more information or technical assistance in formulation with Ultragrain High Performance, e-mail info@ardentmills.com.

Co-branding: Studies show that Ultragrain co-branding significantly increases purchase intent. To leverage the benefits of Ultragrain co-branding on your packaging or menu, e-mail info@ardentmills.com.

Typical Granulation Comparison Ultragrain Particle Size Similar to Refined Flour



Ultragrain HP Whole Wheat Flour Nutritional Data Table values are per 100 grams

Nutrients

Calories, Kcal	339
Carbohydrate, by difference, g/100 g	73.27
Total dietary fiber, g/100 g	12.2
Sugars, g	0.41
Protein	12.0
Fat	1.87
Ash	1.6

Vitamins

Niacin, mg	6.4
Vitamin E, mg	0.0
Pantothenic acid, mg	1.0
Thiamin, mg	0.45
Vitamin B6, mg	0.0
Riboflavin, mg	0.22
Folate, total, mg	44.0

Minerals

Potassium, mg	405
Phosphorous, mg	346
Magnesium, mg	138
Calcium, mg	34
Iron, mg	3.88
Manganese, mg	3.8
Zinc, mg	2.93
Copper, mg	.38
Selenium, mcg	70.7
Sodium, mg	5.0

USDA National Nutrient Database for Standard Reference, Release 24 (2012)



Denver, CO

For sales inquiries or to request a specification sheet, contact your Ardent Mills account manager, visit ardentmills.com or e-mail info@ardentmills.com.

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