

# Wheat Flour

This processed commodity is available as all-purpose (AP) or bread flour. It is used in all categories of programs as a staple food.

## A. NUTRITIONAL VALUES (PER 100 g)

These are average values, taken from the U.S. Department of Agriculture, Agricultural Research Service (USDA:ARS) 1998 USDA Nutrient Database, Release 12, Laboratory Home Page, (<http://www.nal.usda.gov/fnic/foodcomp>). These nutrient values are provided as a guide for use in the calculation of food aid rations; users should be aware that shipments of food aid may vary from these exact values. The values for thiamin, riboflavin, niacin, vitamin A, calcium and iron represent the minimum levels of enrichment nutrients (converted to a 100 g basis) as listed in Specifications below.

## B. COMPONENTS

100% wheat flour; vitamins and minerals added.

## C. SPECIFICATIONS

(See Table next page.)

## D. PACKAGING

50 kg (110.23 lb.) woven polypropylene bags. This fabric contains an inhibitor to resist ultra-violet absorption along with an anti-skid coating.

## E. SHELF LIFE

At least one year. See Section III: Storage/Shelf Life Specifications for more information.

Nutrient	Amount	Unit
Water	11.9	g
Energy	364.0	Kcal
Protein	10.3	g
Total Lipid	1.0	g
Carbohydrate	76.3	g
Fiber, total dietary	2.7	g
Ash	0.5	g
Calcium	110	mg
Iron	4.40	mg
Magnesium	22	mg
Phosphorus	108	mg
Potassium	107	mg
Sodium	2.0	mg
Zinc	0.7	mg
Copper	0.1	mg
Manganese	0.7	mg
Selenium	34	mcg
Vitamin C	0	mg
Thiamin	0.64	mg
Riboflavin	0.40	mg
Niacin	5.29	mg
Pantothenic acid	0.4	mg
Vitamin B-6	0.0	mg
Folate	150	mcg
Vitamin B-12	0	mcg
Vitamin A	2205	IU
Vitamin E	0.1	mg-ATE
Vitamin D	n/a	IU
Iodine	n/a	mcg

## 1. ALL PURPOSE (AP) WHEAT FLOUR

The all purpose flour shall be milled from wheat of the classes hard red spring, hard red winter, or soft red winter or hard white or soft white wheat, or any combination thereof, as defined in "Official United States Standards for Wheat."

### ANALYTICAL REQUIREMENTS

ITEM	Minimum	Maximum
Protein (NX5.7), % <sup>1</sup>	9.0	--
Moisture, %	--	14.0
Ash, % <sup>1</sup>	--	<sup>2</sup>
	--	0.48
Calcium, mg/lb. <sup>3</sup>	500	625
Vitamin A palmitate, IU/lb. <sup>4</sup>	8,800	--
Falling Number <sup>1</sup>	175	350

<sup>1</sup> These limiting values are on a 14.0 % moisture basis.

<sup>2</sup> For maximum ash see Table on "Maximum Ash Allowable Without Discount at Specified Calcium Levels" (paragraph 9.D) in USDA Specifications.

<sup>3</sup> Flour prior to calcium enrichment should be straight flour with an ash content of not to exceed 0.46 % (14 % moisture basis).

<sup>4</sup> Vitamin A Palmitate (stabilized) must be added in encapsulated form containing 25,000 IU Vitamin A Palmitate/g.

Source: USDA:FSA:PDD:EOB April, 1996. Contact 202-690-3565

<http://www.fas.usda.gov/excredits/pl480/commodities/wtflour.htm>

## 2. BREAD FLOUR

The bread flour shall be milled from classes of hard red spring, hard red winter, or hard white wheat as defined in "Official United States Standards for Wheat."

### ANALYTICAL REQUIREMENTS

ITEM	Minimum	Maximum
Protein (NX5.7), % <sup>1</sup>	11.3	--
Moisture, %	--	14.0
Ash, % <sup>1</sup>	--	<sup>2</sup>
	--	0.46
Calcium, mg/lb. <sup>3</sup>	500	625
Vitamin A Palmitate, IU/lb. <sup>4</sup>	8,800	--
Falling Number <sup>1</sup>	200	300

<sup>1</sup> These limiting values are on a 14.0 % moisture basis.

<sup>2</sup> For maximum ash see Table on "Maximum Ash Allowable Without Discount at Specified Calcium Levels" (paragraph 9.D) in USDA Specifications.

<sup>3</sup> Flour prior to calcium enrichment should be straight flour with an ash content of not to exceed 0.46 % (14 % moisture basis).

<sup>4</sup> Vitamin A Palmitate (stabilized) must be added in encapsulated form containing 250,000 IU Vitamin A Palmitate/g.

Source: USDA:FSA:PDD:EOB June, 1997. Contact 202-690-3565

<http://www.fas.usda.gov/excredits/pl480/commodities/Bread.htm>