WHEY PROTEIN

AMERICAN Dairy Products INSTITUTE™

WPC80
Whey Protein Concentrate 80%

Product Definition

Whey Protein Concentrate 80% (WPC 80) is obtained by the removal of sufficient non-protein constituents from whey so that the finished dry product contains at least 80% protein. It is produced by physical separation techniques such as membrane filtration.

Whey Protein Concentrate complies with all provisions of the U.S. Federal Food, Drug, and Cosmetic Act.

Composition

PARAMETER	UNITS OF MEASURE	WPC 80	
		TYPICAL VALUES	LIMITS
PROTEIN, DRY BASIS	%	80.0 – 82.0	79.5 minimum
LACTOSE	%	4.0 – 10.0	–
FAT	%	4.0 – 8.0	10.0 maximum
TOTAL MOISTURE	%	3.5 – 5.0	6.0 maximum
ASH	%	3.0 – 5.0	–

Other Characteristics

PHYSICO-CHEMICAL PROPERTIES		
PARAMETER	UNITS OF MEASURE	LIMITS
PH	–	6.0 – 6.7
COLOR	visual	white to cream
FLAVOR	sensory	bland, clean

Product Labeling

Recommended identifications: Whey Protein Concentrate

Nutrition Facts

servings per container
Serving size (100g)

Amount per serving
Calories 390

	% Daily Value*
Total Fat 4.5g	6%
Saturated Fat 3g	15%
Trans Fat 0g	
Cholesterol 205mg	68%
Sodium 230mg	10%
Total Carbohydrate 9g	3%
Dietary Fiber 0g	0%
Total Sugars 8g	
Includes 0g Added Sugars	0%
Protein 79g	158%
Vitamin D 0mcg	0%
Calcium 566mg	45%
Iron 0mg	0%
Potassium 387mg	8%
Phosphorus 394mg	30%
Magnesium 55mg	15%

*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Protein Quality

Protein Digestibility Corrected Amino Acid Score (PDCAAS)..... 1.00

Digestible Indispensable Amino Acid Score (DIAAS)..... 0.97

Functionality and Applications

HIGH PERFORMANCE:

Hydration Rate
Gelation
Acid Stability

MEDIUM PERFORMANCE:

Emulsification
Water Binding
Whipping

WPC 80 provides functionality to many applications at levels of 1-4% usage. Functional uses include egg or fat replacement, syneresis prevention in yogurt, water binding in ice cream, and others.

WPC80 provides a high quality protein source for protein enhancement of ready to mix and ready to drink protein beverages, nutrition bars, frozen desserts, bakery products, confections, yogurt drinks, medical foods, and infant formulas for usage levels of 5% and higher.

Product Examples
(launched in the last 2 years)

Credit: Innova Market Insights

Magic Spoon Cereal Bars: Whey protein concentrate provides a high quality source of protein in this nutrition bar. Combined with casein, it contributes 11 g of protein per serving, which qualifies the nutrition bar as an excellent source of protein.

Ascent Iced Coffee & Protein: WPC80 and whey protein isolate are the high quality sources of protein for this protein enhanced iced coffee mix. This ready to mix coffee drink provides an excellent source of protein with 20 grams of protein per serving.

Kodiak Flapjack Quick Mix: This protein enhanced pancake mix uses WPC80 and milk protein concentrate as the high quality protein sources. Combining dairy proteins with plant proteins improves the overall protein quality of the mix compared to using wheat gluten and wheat protein isolate alone.

Ultra Women's Protein Powder: WPC80 is the high quality source of protein in this drink mix for women. Whey protein helps build lean muscle and prevents muscle loss with aging.

Wegman's Gluten-Free Cake Mix: WPC80 provides some protein structure for this gluten free cake mix. Instantized WPC80 helps to improve the wettability of the WPC in a dry mix application like a cake mix.

Similac Ready-to-Drink Infant Formula: WPC80 is an important source of protein for infant nutrition and especially for premature and low birth weight babies. This infant formula uses WPC80, nonfat dry milk, and lactose as the primary protein and carbohydrate sources.

Flings Toaster Pastries: WPC80 is the lead protein source for this protein enhanced toaster pastry. Combining WPC80 with calcium caseinate and egg whites, improves the protein quality of the protein blend with plant based flours.

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