

High-Protein Granola Bar: Whey Good Bar



INGREDIENTS

	Usage Levels (%)
Chewy Granola Bar	
Granola cereal	35.4
Whey crisp, 50%	18.4
Corn syrup, 62/43 DE	10.0
High maltose rice syrup, 42 DE	6.6
Vegetable oil	5.4
Sugar syrup, invert	5.3
Whey protein isolate (WPI), whey protein hydrolysate blend	5.1
Almonds, whole, dry roasted	2.7
Corn syrup solids, 25 DE	2.6
Sorbitol, USP	2.4
Water	2.2
Honey	1.1
Milk calcium	0.9
Dried coconut, unsweetened	0.8
Skimmed milk powder	0.8
Salt	0.2
Vanilla extract, bourbon	0.1
Total	100.00

INGREDIENTS

	Usage Levels (%)
Caramel Layer	
Corn syrup, 42/43 DE	30.7
Sugar, granulated	24.9
Water (1)	18.5
Water (2)	6.4
Butter, lightly salted	6.2
Dairy calcium	6.2
Whey protein concentrate, 34% protein (WPC 34)	6.0
Soybean lecithin oil	0.5
Salt	0.4
Flavors (caramel, dairy and vanillin)	0.2
Total	100.00

Note: Bar Ratios

Chewy granola bar, 53.8%
Caramel layer, 23.1%
Milk chocolate coating, 23.1% (See Confectionery Section for application)

NUTRITIONAL CONTENT

Per 100g	
Calories	415kcal
Total Fat	15g
Saturated Fat	7g
Trans Fat	0g
Cholesterol	15mg
Total Carbohydrates	63g
Dietary Fiber	2g
Sugars	37g
Protein	12g

PREPARATION

Chewy Granola Bar

1. **Combine granola cereal, coconut, almonds, whey crisp, dairy calcium and WPI/whey protein hydrolysate blend.**
2. **Combine remaining ingredients, except vanilla.**
3. **Heat syrup to 88°C (190°F).**
4. **Add cooked syrups to the dry blend in a mixer, add the vanilla extract and coat until uniform.**
5. **Compress into a 1.4 cm (0.6") thick sheet that is 31 x 45 cm (12 x 18") and cool.**
6. **Apply caramel to granola base at 23% (see caramel formulation).**

High-Protein Granola Bar: Whey Good Bar


PREPARATION

(continues)

1. **Cut into bars 3.18 x 10.16 cm (1.3 x 4") to a weight of**
2. **45 grams.**
3. **Enrobe with milk chocolate to a weight of 60 grams or 23% chocolate.**
4. **Package.**

Caramel Layer

1. **Mix WPC 34 in water (1).**
2. **Combine corn syrup, sugar, butter, lecithin oil, salt, water (2) and a quarter of the WPC 34 mixture.**
3. **Mix together for several minutes to emulsify. Bring to a boil.**
4. **Stir in the remainder of the WPC 34 mixture. Cook to 115°C (239°F) while stirring constantly until 83 Brix is reached.**
5. **Add dairy calcium and flavors; mix well.**
6. **Pour over granola slab at 23%. Cool.**

Rely on the dynamic lineup of U.S. dairy to meet consumer demands for global product development. The U.S. Dairy Export Council (USDEC) offers resources on ThinkUSAdairy.org including a dairy ingredient supplier search, consumer, nutrition and product research, technical insights and prototype assistance to help develop and launch your next successful product.  [@ThinkUSAdairy](https://twitter.com/ThinkUSAdairy)

This formula serves as a reference. Product developers are encouraged to modify the formula to meet manufacturing and finished product specification needs. Developed by Knechtel Laboratories. ©2014 U.S. Dairy Export Council.