

# LipoMill Linseed Press Cake and Flour



DE-ÖKO-003

## General Information

**LipoMill Linseed Press Cake** is rich in dietary fibre and protein. Linseed proteins have a high percentage of globulins and albumins, which have extraordinary water binding and emulsifying capacities. The amino acid profile (irrespective of digestibility) is one of the highest of all vegetable proteins, comparable to hemp protein.

Linseeds are rich in lignans, a phytoestrogen with antioxidant properties.<sup>1,2</sup>

In view of its protein composition, Linseed Press Cake is an excellent product with good rheological properties (e.g. elasticity, crust colour, firmness, flavour) and water binding capabilities. **LipoMill Linseed Press Cake** and **LipoMill Linseed Flour** are outstandingly qualified for use in food.<sup>3</sup>

- **For breakfast cereals and snacks**
- **As a protein enrichment in pasta**
- **As a ingredient in baked goods**
- **As a consistency enhancer, e.g. in smoothies**

Nutritional value <sup>4</sup>	(g/100 g)
<b>Protein</b>	<b>32.7</b>
Energy	1326 kJ / 319 kcal
Fat	8.8
<i>Saturated fatty acids</i>	1.1
<i>Monounsaturated fatty acids</i>	1.8
<i>Polyunsaturated fatty acids</i>	5.8
Carbohydrates	9.5
<i>Sugar</i>	2.4
Salt	0.2
Moisture	9.1
Ash	4.5
Dietary Fibre	35.4

- **cold-pressed**
- **vegan**
- **conventional or organic qualities**



Reference daily intake for adults:  
0.8 g protein/kg body weight (WHO).

<sup>1</sup> Kajla P. et al., "Flaxseed - a potential functional food source". J Food Sci Technol., 52: 4 (2015).

<sup>2</sup> Jhala A. "Flax (Linum usitatissimum L.): Current Uses and Future Applications". Aust. J. Basic & Appl. Sci., 4:9 (2010).

<sup>3</sup> Rabetafika H.N. et al., "Flaxseed proteins: food uses and health benefits", Int. J. of Food Science and Technology, 46 (2011).

<sup>4</sup> Test results for Linseed Press Cake as conducted by an accredited testing laboratory (2017).

### Liability limitation:

Information and data contained herein are intended only for expert audience and not for end-consumers. The information and data contained herein are based on our current knowledge and experience. This does not relieve the company producing and/or placing a product on the market from carrying out own investigations and tests. These data neither warrants certain properties nor the suitability of the product for a specific purpose. Data specified herein may change without prior notice and is not to be considered as part of our terms and conditions of sale.

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## Vitamins, Minerals and Amino Acids

as per "Self Nutrition Database" (supplied by USDA).<sup>5</sup>

Vitamins and Minerals	
Composition	in 100 g seeds
<b>Vitamine</b>	
Vitamin E	0.3 mg
Vitamin B <sub>1</sub>	1.6 mg
Vitamin B <sub>2</sub>	0.2 mg
Niacin	3.1 mg
Vitamin B <sub>6</sub>	0.5 mg
<b>Minerals</b>	
Sodium	30 mg
Potassium	813 mg
Magnesium	392 mg
Calcium	255 mg
Iron	5.7 mg
Phosphorus	642 mg
Zinc	4.3 mg
Manganese	2.5 mg

Omega-3-Fatty Acids in 100 g seeds	
Alpha linolenic acid	4.8 g

As per "Self Nutrition Database" (supplied by USDA).<sup>5</sup>

Amino Acid Profile	
Amino acid	mg/100 g seeds
Alanine	925
Arginine	1925
Asparagic acid	2046
Cysteine	340
Glutamic acid	4038
Glycine	1248
Histidine*	472
Isoleucine*	896
Leucine*	1235
Lysine*	862
Methionine*	370
Phenylalanine*	957
Proline	806
Serine	970
Threonine*	766
Tryptophan*	297
Tyrosine	493
Valine*	1072

\*essential amino acid

The amino acid score of 92 has not been corrected for digestibility.<sup>6</sup>

## Nutrition Claims

In due consideration of Regulation (EC) No.: 1924/2006 of the European Parliament and of the Council on health and nutrition claims made on foods as well as the aforementioned nutrient values<sup>5</sup>, we believe the following nutrition claims are maintainable:

**A product with high fibre content:** As it contains more than 6 g of dietary fibre per 100 g and more than 3 g of dietary fibre per 100 kcal.

**A product with high protein content:** As at least 20% of the energy value comes from protein.

**A product with high vitamin B<sub>1</sub> and B<sub>6</sub> content:** As it contains twice as much vitamin B<sub>1</sub> and B<sub>6</sub> than defined as a significant amount in Appendix I of the European Guideline 90/496/EEC on vitamins.

**A source of vitamin B<sub>2</sub> und B<sub>3</sub>:** As the product contains a significant amount as defined in Appendix I of the European Guideline 90/496/EEC on vitamins and minerals.

**A product with high potassium, magnesium, calcium, iron, phosphorus, zinc and manganese content:** As it contains twice as much of these minerals than defined as a significant amount in Appendix I of the European Guideline 90/496/EEC on minerals.

**A product with high Omega-3 fatty acid content:** As it contains at least 0.6 g alpha linolenic acid per 100 g and per 100 kcal.

<sup>5</sup> <http://nutritiondata.self.com/facts/nut-and-seed-products/3163/2>

<sup>6</sup> Calculation based upon "Dietary References Intake 2005", Institute of Medicine Washington.