² W H E A T



HIGH PROTEIN

LOW SUGAR

LOW SODIUM

HIGH DIETARY FIBER

NO ADDED SUGAR

NUTRI-SCORE

CDE

HIGH-QUALITY WHOLE GRAIN PROTEIN CONCENTRATE-

produced from non-GMO wheat grains grown in the Baltics, EU origin, rich in fiber, after fermentation.

Moisture, % -

6

Protein composition in the product -**60-65%**

Water activity (a_w) -**0.434**

рН -**4.01** Dietary fiber composition in the product -**17%**

Contains all essential amino acids

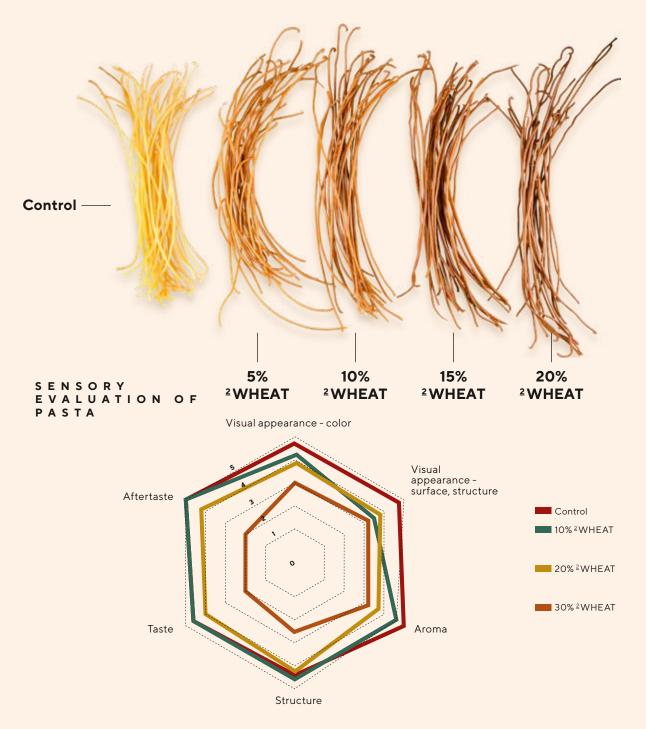
Total amount of amino acids - **60%**

According to the recipe, control meets the conditions of the EC Regulation for the use of the nutrition claim "SOURCE OF PROTEIN" and "SOURCE OF FIBRE" to produce a protein content of 11 g/100 g of product and fiber content of 4 g/100 g.

In order to be able to use the expression "HIGH PROTEIN" in the EC Regulation, the ²WHEAT content of the total flour content must be 12%, resulting in a protein content of 16.8 g/100 g of the product. To be able to use the nutrition claim "HIGH FIBRE" from the total flour content of ²WHEAT must be 15%. According to experiments the maximum ²WHEAT content according to physical and sensory parameters is 20% of the total flour content.

			Color		
Samples	Cooking time, min	Water absorption capacity, g (start weight 10g)	L* (lightness)	a* (green-red)	b* (blue-yellow)
Control (100% wheat flour)	9	16.8	73.45	-6.99	20.85
10% ² WHEAT	10	15.3	66.80	-3.87	21.85
20% ² WHEAT	11	14.9	64.76	-1.07	22.71
30% ² WHEAT	9	15.7	55.85	0.46	21.79

The amount of ²WHEAT added is of the total amount of flour.



EFFECT OF ADDITION OF ²WHEAT RAW MATERIAL ON DOUGH

The addition of ²WHEAT makes the dough stiffer and absorbs slightly more water compared to the control, the consistency of the dough does not change. The mixed dough behaved similarly to the control in terms of swelling. Control (100% wheat flour) and 10% ²WHEAT have the softest, most pliable texture, but doughs with more than 10% ²WHEAT can be felt on the touch.

EFFECT OF ADDITION OF ²WHEAT RAW MATERIAL ON FINISHED PRODUCT:

The addition of ²WHEAT increases the cooking time of the pasta by an average of 2 min, while the water absorption capacity decreases. The structure and fragility of 10% and 20% of ²WHEAT are not different from controls. But adding ²WHEAT reduces the smoothness of the pasta structure, which is due to the rich amount of dietary fiber. Adding a ²WHEAT significantly changes the lightness-darkness indicator L *. With an increase in protein concentration L * decreases. It creates pleasant associations with healthy versions of this product - health, bran, seeds, grain bread, green thinking, lifestyle. The addition of ²WHEAT has no significant effect on the aroma. At 10% and 20% ²WHEAT concentrations, pasta does not dissolve, retains its structure well, and the taste and aftertaste remain unchanged.

PRODUCER: "I.S.D." SIA

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