

WHAT DO THE TYPE AND STRENGTH OF THE FLOUR MEAN?



What does the type of flour mean?

Flour types are defined according to the content of mineral substances (ash). The higher the type, the more mineral substances the flour contains. The whitest flour ground from wheat kernel has the lowest type, with semi-white and brown marked as type 850 or 1100, and wholemeal containing ground whole wheat grains. The darker colour of the higher-type flour is due to the increased amount of the peripheral part of the grain and the small fragments of the bran. The name of the types of flour varies from country to country.

What is ASH?

The ash is calculated by burning the flour. The organic matter is burned, but the minerals remain – and the ash is weighed. For example, when 100 kilograms of flour is burnt and 500 grams of ash remains at the end that means that the flour was of type 500. In fact, much smaller samples of flour are incinerated in the laboratory analysis.

Slovenian Regulation on the quality of cereal products defines the following types:

Wheat flour and semolina are classified and named as:

- semolina (type 400) — ash content below 0.45%,
- type 400 wheat white flour — ash content below 0.45%,
- type 500 wheat white flour — ash content between 0.46% and 0.60%,
- type 850 wheat semi-white flour — ash content between 0.75% and 0.95%,
- type 1100 wheat brown flour — ash content between 1.00% and 1.20%,
- type 1600 wheat brown flour — ash content between 1,50% and 1,80%,
- wheat wholemeal flour – ash content not exceeding 2.00%,
- wheat durum flour – ash content between 0.9 on 2.0%,
- durum wheat semolina – ash content not exceeding 0.9%.

Slovenian Regulation on the quality of cereal products defines the following types:

Wheat mill products are classified and marketed under the following names:

- type 400 coarsely milled wheat flour — ash content below 0.45%,
- type 400 white wheat flour — ash content below 0.45%,
- type 550 white wheat flour — ash content between 0.50% and 0.60%,
- type 700 semi-white wheat flour — ash content between 0.65% and 0.75%,
- type 850 semi-white wheat flour — ash content between 0.80% and 0.90%,
- type 1100 brown wheat flour — ash content between 1.05% and 1.15%,
- type 1600 brown wheat flour — ash content between 1.55% and 1.65%,
- wheat groats,
- wholemeal wheat flour — ash content up to 2.0 %,
- wholemeal wheat groats,
- coarsely milled flour of durum wheat or durum wheat semolina,
- finely milled flour from durum wheat.

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- type 550 white wheat flour — ash content between 0.50% and 0.60%,
- type 700 semi-white wheat flour — ash content between 0.65% and 0.75%,
- type 850 semi-white wheat flour — ash content between 0.80% and 0.90%,
- type 1100 brown wheat flour — ash content between 1.05% and 1.15%,
- type 1600 brown wheat flour — ash content between 1.55% and 1.65%,
- wheat groats,
- wholemeal wheat flour — ash content up to 2.0 %,
- wholemeal wheat groats,
- coarsely milled flour of durum wheat or durum wheat semolina,
- finely milled flour from durum wheat.

In Italy, these types are:

- type 00 wheat flour with a maximum ash content of 0.55%, a minimum protein content of 9%,
- type 0 wheat flour with a maximum ash content of 0.65%, a minimum protein content of 11%,
- type 1 wheat flour with a maximum ash content of 0.80%, a minimum protein content of 12%,
- type 2 wheat flour with a maximum ash content of 0.95%, a minimum protein content of 12%,
- wholemeal wheat flour with ash content of 1.3 to 1.7%, minimum protein content of 12%.

There are the following types of flour in Austria:

- Wheat flour, semolina and type W480 extracts (ash content between 0.33% and 0.58%),
- Type W700 bakery flour (ash content between 0.66% and 0.79%),
- Type W1600 bread flour (ash content between 1.50% and 1.75%),
- Wholemeal wheat flour (ash content between 1.5% and 2.3%).

What does the strength of the flour tell us?

The strength (W) of the flour describes its ability to stretch or retain gases during rising. The stronger the flour, the more we will be able to stretch it before it begins to tear and before the dough begins to collapse. From weaker flour, weaker dough is obtained that spreads out more while from stronger flour, more elastic dough is obtained that retains its shape better and longer. Flour with higher strength is typically used for products requiring a high gas-retaining capacity or long-lasting rising, whereas flour with lower strength is more suitable for products with shorter rising times or for types of dough where these flour properties are not important (e.g. sponge cake, shortcrust pastry).