



**PURE**



**FLOUR**



**FROM  
EUROPE**

**ORGANIC AND SUSTAINABLE  
EXCELLENCE**





ENJOY  
IT'S FROM  
EUROPE



# Why Pure Flour From Europe?

European flours, Italian especially, are among the best in the world in terms of quality, safety, and versatility. The project, "Pure Flour from Europe" is an educational campaign managed by ITALMOPA (the Italian Milling Industry Association) and co-funded by the European Union, which aims to promote the recognition, consumption and sale of Italian and European flours: specifically, the finely milled, organic soft wheat flour and the coarser, hard wheat semolina in Canada and the USA: **products of the highest excellence**, which preserve the flavors and nutritional elements of the wheat and which comply with the stringent food safety regulations in force in Europe, to guarantee a **truly healthy product** on the tables of all consumers.



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# **WHEAT: A Small Portrait**

Wheat is a staple food in many parts of the world and creates many of the **world's favorite dishes**.

The many species of wheat make up the genus *Triticum*, part of the Poaceae or Gramineae family, which includes other cereals such as corn, barley, rice and rye. The *Triticum* genus includes different species, among which the most common are:

- **Soft wheat or *Triticum Aestivum***, which is used to produce soft wheat flour, is grown mainly in warm and temperate regions. The grains, when broken, show a difference in texture between the harder edge and the starchier center. Their content in starch, fat, iron, phosphorus and vitamin B is higher than in durum wheat. The flowering plant produces spikes, and their seeds are called kernels or grains. Depending on the cultivar or agricultural variety, the shape of the grain, its starch and protein content vary as can its color. The wheat spikes or ears attached to the plant, as found in nature, cannot be ground by the mills, but need reaping, threshing, gathering and winnowing, which the modern combine harvester is able to do in a single process. Once this is done, the grain is ready to enter the mill, where it will be checked and cleaned several times before being ground.

- **Durum wheat or *Triticum Durum***, mainly used to produce semolina is grown in drier areas. The appearance of the interior of the grain when it is broken is crystalline and uniform. It features a higher proportion of protein, water and calcium than soft wheat. Durum wheat is the hardest of the various classes of wheat—the word durum comes from Latin, meaning “hard”. It also has a slightly golden hue which it imbues anything made from it. Because it is high in protein and gluten it holds up in structure when milled into semolina, so perfect for both pasta and bread. For bread, semolina gives a sturdy structure as it is able to rise slowly and develop in flavor and texture. For pasta, it makes a stiff dough which can be extruded into a myriad of shapes. The pasta also has the sturdiness to then be dried and packaged. And, though hard wheat semolina is generally best for dried pasta and soft wheat flour for hand-rolled fresh pasta, sometimes semolina is used for making hand-rolled pasta too.







# Organic Farming

Organic farming helps to support nature, protecting the environment and promoting sustainability.

It is a cultivation method that rejects pesticides, fertilizers and additives, all substances that have a negative environmental impact on soil, air, water, animals and humans. And it's not just the absence of harmful substances: in organic farming, traditional cultivation methods are used, such as rotating field plantings and cycles of growing, and enriching the soil only with nature's own fertilizers.

Organic farming is highly regulated in the EU; its cultivation must adhere to an exacting list of principles and production rules. First of all, the seeds must be chemically untreated and naturally cultivated. All organic farming is based on a system known as "alternative principles": methods used since ancient times that look after the health of the soil and follow the natural cycle of the seasons.



**0% chemicals products**

used during the farming







# ***From Grain To Flour***

After harvesting, the transformation begins.



## **Harvest**

the grain is ripe and ready for harvesting from the month of June.



## **Cleaning**

the best grains are selected and carefully cleaned of foreign substances (such as straw).



## **Conditioning**

the grains are rehydrated to increase their humidity. This is to ensure a better separation of the peel in the next step, the grinding.



## **Grinding or milling**

is the most important part of the flour producing process. The grains are broken up to extract their "heart", creating a by-product of broken grains and flakes. Semolina and durum wheat flour are created from this process. Soft wheat flour, on the other hand, depends upon multiple grinding to refine and lighten its consistency.



## **Refining or sifting**

the flour is sieved which results in a reduced particle size. The most refined flour is type 00 flour.



# ***The Milling Process***

Milling is the grinding process that transforms the kernels of the cereals into flour. The universally recognized excellence of the European and Italian milling sector comes from centuries of experience and mastery, depending on the miller's ability to identify, select, mix and transform the best varieties of wheat, whatever their origin and characteristics.

It starts when the grain arrives at the mill where it is inspected and weighed to ensure quality standards. Each stage of reception, consignment and bulk storage in silos is controlled and recorded by a computerized traceability system, which allows the entire production chain of each batch of flour to be reconstructed and tracked.

The current grinding system is the high-tech version of that in ancient times. Then, the grains of wheat were crushed manually with a roller on a flat stone. Later this was replaced by the force of water on a wheel. Until the discovery of electricity, mills were always located next to waterways. The milling process has evolved from the days of grinding the wheat between two large stone wheels (although this process does still occur in a few mills), to the modern roller mill, with technological advances ensuring safety, high standards of hygiene, and the ability to produce large quantities of flours, depending on the demands of the market.





# Food Safety

Italy and the European Union have always been in the vanguard regarding food safety and quality. Food quality standards are an important part of European food culture.

All Member States must respect the same criteria; controls are carried out to the same standard across the EU. By harmonizing the sanitary regulations, the free movement of safe food is made possible, contributing significantly to the well-being of citizens and their social and economic interests.

With regards to flour, there are about 15 levels in the control network in Italy, in addition to the cross-checks carried out by the milling industry as part of its own self-control systems, which guarantee food safety and the protection of consumer health. Systematic checks ensure full compliance with EU legislation on consumer health protection; thousands of samples are taken for hundreds of thousands of analyses, protecting the consumer and the milling industry itself.









# ***Environmental sustainability energy efficiency, carbon and water footprint***

Milling is generally a very simple and clean production process, in which the environmental impact is limited only to the consumption of electricity and the use of water in the conditioning phase. The flour milling industry is naturally less environmentally intrusive than many other industries, and millers are keen to maintain this clean record by:



***Low use of natural resources***



***Use of biomass for sustainable energy production***



***Reduction of air emissions***



***Productive use of by-products***

There is a growing commitment to sustainability as well as transparency of the entire supply chains, developing agricultural models that have less environmental impact. Some mills have joined with nearby farms, reducing transport emissions, supporting the local community and helping create environmental sustainability.







# Nutritional Properties Of Flours

The nutritional properties of flours are those of the cereal they are ground from, though the processing can slightly affect the nutrient content which therefore varies between different types of flour.

Italian type 00 and 0 flours (**soft wheat flours**) provide 340 calories per 100 g (the energy deriving mainly from complex carbohydrates). Soft wheat flour is also a good source of vegetable protein: 11 g per 100 g, and it is also very low in fat.

Whole soft wheat flours have a higher nutritional quality than white, such as fiber, iron, potassium, calcium, and slightly lower calorie content (319 instead of 340 for type 00 and 0). **00 flour is the most refined** and contains only starch and few proteins, without any trace of bran rich in fiber and vitamins, **0 flour is less refined** than the previous one but still contains few nutrients. Soft flour is comparatively **low in gluten** and thus results in a loaf with a finer, crumbly texture.

Made as it is from hard (durum) wheat, **semolina** is much **richer in protein and vitamins** than soft wheat flour; if the semolina is whole wheat, it is also richer in fiber. Semolina contains carotenoids such as lutein and beta-carotene which are natural antioxidants, great for preventing cellular aging. In addition, durum wheat semolina is recommended by doctors because it has a low glycemic index. So, it is suitable for those who suffer from high blood sugar or cholesterol.

100 grams of semolina brings about 314 calories in the form of carbohydrates, starch, protein, zinc, fiber, magnesium, copper, selenium, and a small amount of fats.



## **100 grams** of soft wheat flours

brings about **340 calories** for type 00 and **319 calories** for type 0 in the form of:

carbohydrates, starch, protein, zinc, fiber, magnesium, copper, selenium, and a small amount of fats, the energy deriving **mainly from complex carbohydrates**.



## **100 grams** of semolina

brings about **314 calories** in the form of:

carbohydrates, starch, protein, zinc, fiber, magnesium, copper, selenium, and a small amount of fats.



# **Organic Soft Wheat Flour & Organic Semolina**

Organic soft wheat flour and organic semolina are milled from pesticide-free grain and grown in soil that is fertilized only by natural substances. They are not artificially processed or chemically ripened. They also develop more robustly, absorbing more nutrients from the soil, thereby making the flour healthier and more nutritious.

The fertility of the soil and organic (natural, not chemical) fertilizers enable both soft wheat flour and semolina to preserve the nutrients of two fundamental parts of the wheat: the bran and the germ. They are aged naturally and have no artificial additives. Aging naturally exposes them to oxygen which, over time, accentuates the grains' natural flavors.

The absence of chemicals reduces the presence of nitrogen and, consequently, of gluten proteins. The entire grain production cycle must not include any type of artificial contamination, ensuring full respect for the environment, as well as obvious benefits to taste and health. In fact, organic farming allows the preservation of vitamins, fibers, mineral salts and those enzymes that make the flour and semolina much more digestible, aromatic and nutritious. Flour and semolina grown and produced with organic and natural methods while respecting nutritional values are the cornerstone of an ever-growing and appreciated foodway tradition.







## ***Respect for nature***

Using organic soft wheat flour and organic semolina means above all respecting the ecosystem. It means respecting the land, as crop rotation allows the soil to rest properly. It means respecting the plants, as they manage to develop the necessary immune defenses, in a completely autonomous way, and they are helped to grow only with the use of natural fertilizers. It means respecting seasonality, following the rhythms of nature.

## ***Raising awareness of what is good and healthy***

Using "Made in Europe" - "Made in Italy" organic soft wheat flours and organic semolina means adopting a philosophy of life not only for the food you eat. It also helps you to be healthy and ethical, choosing products deriving from organic agriculture and using environmentally friendly processing and production techniques. Using organic soft wheat flour and organic semolina is a true lifestyle choice. It means opting for a healthy diet and a healthy psychophysical balance deriving from a conscious choice made every day in terms of sustainability, authenticity, the excellence of raw materials and, more generally, awareness of what is good and healthy.



# ***Organic soft wheat flour and organic semolina are good for you***

Organic soft wheat flour and organic semolina are the perfect combination of taste, well-being and eco-sustainability. They are lighter and more digestible and help avoid the development of food intolerances because they have not been manipulated and are less refined; they keep intact the properties contained in the grains and have a balanced relationship between starch and gluten.







## ***Taste and authenticity***

Organic soft wheat flour and organic semolina come from an agriculture that uses the spontaneous course of the productivity of the fields, without any chemical fertilizers or products, giving them more vitality in flavor and nutrients. Even their storage is tightly regulated, banning the use of herbicides, or chemical fertilizers and pesticides; the milling thus preserves all the nutrients of the grain intact, including vitamins, fibers, mineral salts, enzymes and noble proteins, with an organoleptic gain that increases flavor in terms of genuineness and authenticity.

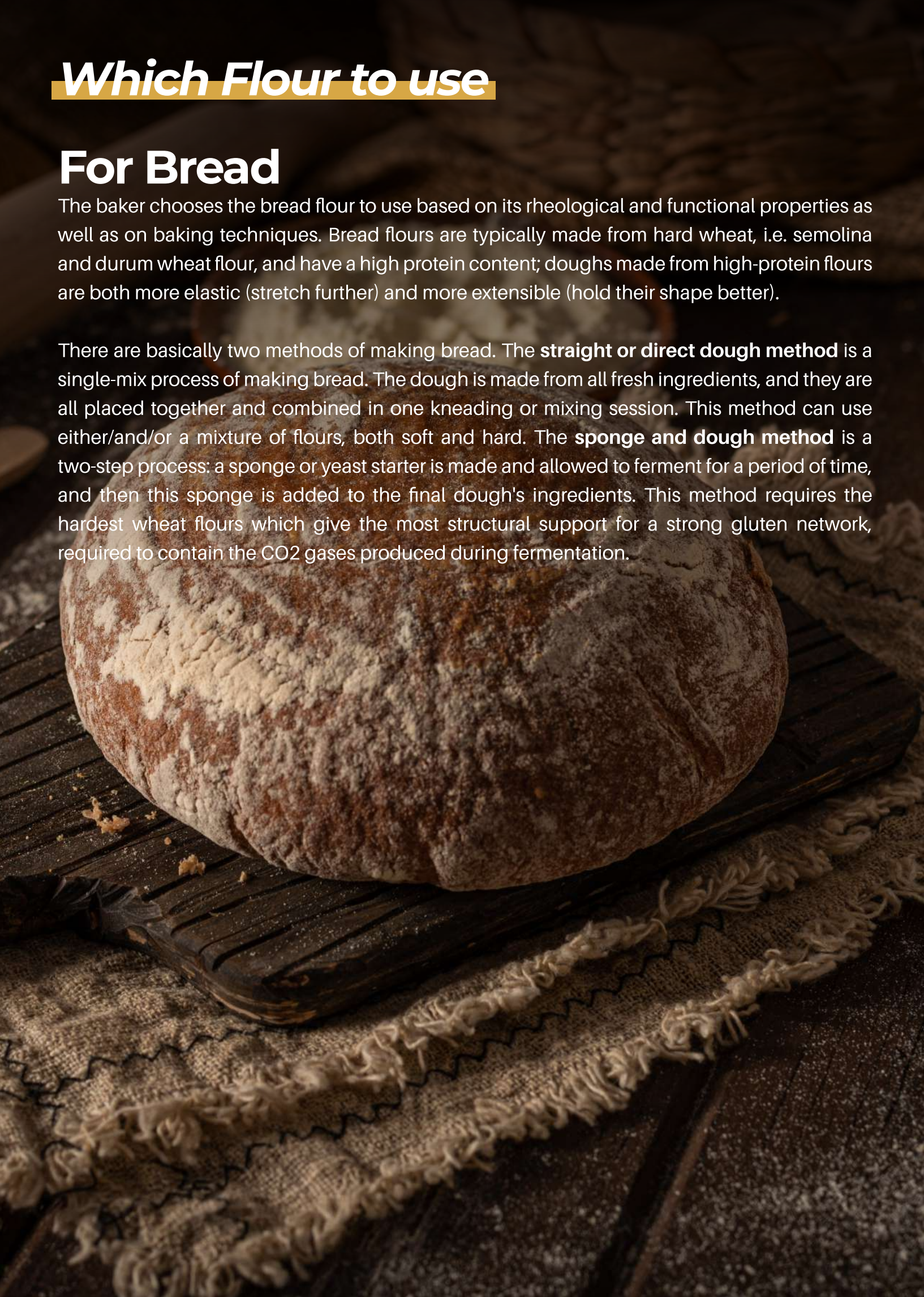


# Which Flour to use

## For Bread

The baker chooses the bread flour to use based on its rheological and functional properties as well as on baking techniques. Bread flours are typically made from hard wheat, i.e. semolina and durum wheat flour, and have a high protein content; doughs made from high-protein flours are both more elastic (stretch further) and more extensible (hold their shape better).

There are basically two methods of making bread. The **straight or direct dough method** is a single-mix process of making bread. The dough is made from all fresh ingredients, and they are all placed together and combined in one kneading or mixing session. This method can use either/and/or a mixture of flours, both soft and hard. The **sponge and dough method** is a two-step process: a sponge or yeast starter is made and allowed to ferment for a period of time, and then this sponge is added to the final dough's ingredients. This method requires the hardest wheat flours which give the most structural support for a strong gluten network, required to contain the CO<sub>2</sub> gases produced during fermentation.



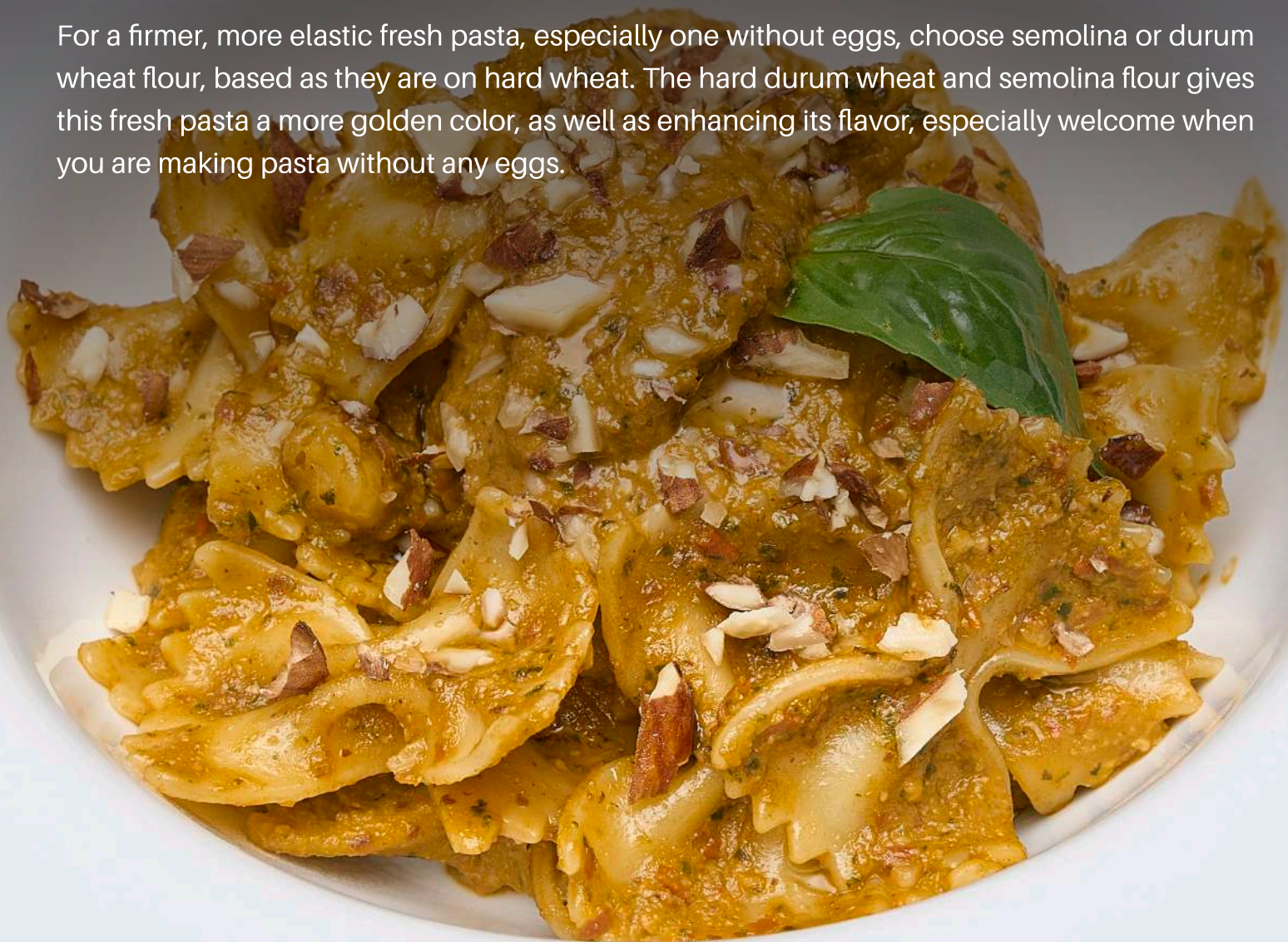


# For Pasta

Traditionally, fresh egg pasta in Italy has always been prepared with soft wheat flours, which in the past were carefully sieved before use, in order to eliminate any lumps. This principle is still valid today: to obtain a traditional egg pasta dough you can use "00" or "0" flours. But which of the two types is better than the other? In reality, the difference between type "00" and type "0" flours is linked to the ash parameter.

Potato gnocchi are among the fresh pasta recipes to be prepared with soft wheat flours. The recipe is very simple and differs from the pasta dough by the addition of potatoes and a pinch of salt (they may be prepared with or without eggs). The amount of flour should be around 20%-25% of the weight of the potatoes. In addition, in this case, a flour with a low protein content should be used, since flours with a high percentage of proteins would make the dough too tough. A low ash content flour should be used, with a grain size similar to semolina, so the yellow color of the potatoes prevails in the dough.

For a firmer, more elastic fresh pasta, especially one without eggs, choose semolina or durum wheat flour, based as they are on hard wheat. The hard durum wheat and semolina flour gives this fresh pasta a more golden color, as well as enhancing its flavor, especially welcome when you are making pasta without any eggs.





# For Pizza

To make a good-quality pizza dough, mixes of type 00 flour and hard wheat flour are used in a percentage from 5% to 20% with medium-strong rheological properties in order to guarantee an elastic dough that is both soft and tenacious.

In the case of the Pizza Napoletana TSG, there is a product specification that indicates the precise characteristics of the flour to be used - it must be made up of a mixture of type 00 and type 0 flours with a medium-high strength varying between 220 and 380 W.





# For Cakes and Pastries

There are countless types of cakes and pastries, each of which requires an appropriate type of flour. In general, type 00 flours and, sometimes, type 1 flours are used. The type of cake to be prepared influences the type of flour so there are short crust pastry flours, cake flour, flour for choux pastry, flour for puff pastry, flour for leavened products and brioche flour.







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