

W A T E R



the most important ingredient in gastronomy

division by quality and type

Properties, Occurrence, and Quality

Water is one of the most important raw materials in gastronomy. Although it is often taken for granted, its quality, chemical composition, and physical properties have a crucial impact on the taste, appearance, and safety of prepared dishes and beverages. In a gastronomic environment, water is indispensable not only for cooking itself but also for hygiene, cooling, or beverage preparation.

Properties of water important in gastronomy

Water is colorless, tasteless, and odorless. This neutrality is key in cooking – it must not negatively affect the final taste or appearance of dishes.

The main properties of water used in the kitchen include:

- **Solvent ability**

Water easily dissolves substances, which is important when preparing broths, teas, coffees, or sauces.

- **High heat capacity**

Water transfers heat efficiently, which is why it is used in boiling, steaming, blanching, and cooling.

- **Boiling and freezing points**

It boils at 100 °C and freezes at 0 °C (under normal pressure). This is important for planning kitchen processes.

- **Water hardness**

It is determined by the mineral content, especially calcium and magnesium. Hard water can affect the taste and quality of beverages (e.g., coffee or tea), as well as technological processes (e.g., limescale formation in kitchen equipment).

Occurrence of water in gastronomy

Water appears in various forms in gastronomy:

- ***Tap water***

The most commonly used water in kitchens and restaurants.

- ***Mineral and spring waters***

Used mainly for direct consumption, but also for preparing exclusive dishes or beverages.

- ***Water contained in food***

Most ingredients have a high water content: vegetables and fruits around 80–95%, meat about 70%, milk around 87%.

- ***Ice and steam***

Water in different states is used for cooling, freezing, and cooking (e.g., in combi ovens).





Water quality in gastronomy

Water quality is crucial not only for the taste of dishes but also for hygiene and food safety.

From a gastronomic perspective, several parameters are evaluated:

Chemical quality

- Water should not contain hazardous substances such as nitrates, pesticides, heavy metals, or pharmaceutical residues.*
- The optimal pH of drinking water is between 6.5 and 8.5.*

Microbiological quality

- Water must be hygienically safe, free from bacteria, viruses, or parasites that could contaminate food.*
- It is regularly monitored in food establishments.*

Organoleptic quality

- High-quality water must not have odors (e.g., from chlorine or sulfur) or any off-flavors.*
- The taste of water can significantly influence the final product – for example, when preparing coffee or pasta.*

Technological quality

- Water hardness affects kitchen processes. Very hard water causes limescale, worsens the taste of some dishes and beverages, and reduces equipment lifespan.*
- Soft water is suitable for making tea, coffee, or cooking vegetables.*

Mineral water

Mineral water is natural water that:

Comes from an underground source protected from contamination.

- Contains dissolved minerals and trace elements (e.g., calcium, magnesium, sodium, bicarbonates).
- Has a stable chemical composition that is verified and approved.

Several types of mineral water are distinguished:

- **Table mineral water**

Lightly mineralized, suitable for everyday consumption.

- **Natural medicinal water**

High in specific minerals, used for therapeutic purposes.

- **Spring water**

Very similar to regular drinking water, but of natural origin.

In high-quality gastronomy, it is important to pay attention to the type and brand of water offered by a restaurant. Besides taste, other factors include:

- **Mineral content**

For example, water with a higher sodium content is not suitable for people on a restricted diet.

- **Bottle design and brand**

In luxury restaurants, aesthetics and brand image also matter.

- **Origin of the water**

Water from Alpine springs or traditional European sources (e.g., Evian, San Pellegrino, Mattoni, Römerquelle) is often perceived as higher quality.



Advantages of using mineral water in gastronomy

- ***Enhances service level***

Offering quality water conveys professionalism.

- ***Flavor enrichment***

Subtle differences in mineral composition influence the overall dining experience.

- ***Health benefits***

Water containing calcium or magnesium can be beneficial for the body.

- ***Tasting***

Mineral water is served during tastings of wine, cheese, or coffee – it is used to cleanse the palate and neutralize flavors between samples.

- ***Universal use***

Suitable for drinking, cooking, and mixing beverages.

What to watch out for

- *A high content of certain minerals (e.g., sodium or sulfates) can negatively affect taste or be unsuitable for people on dietary restrictions.*

- *Strongly sparkling water is not suitable for cooking, as it can affect the texture or appearance of dishes.*



The importance of water in gastronomy

In gastronomy, water is more than just an accessory – it is a beverage, ingredient, and tool that can enrich the experience of food and drinks. The correct choice of mineral water can enhance the flavor of dishes, elevate service to a higher level, and contribute to a healthy lifestyle. Even a simple glass of water can, in the hands of a skilled chef or sommelier, become an exceptional part of the gastronomic experience.