

Optimal flavor and freshness in every cup

When filling tea into capsules, especially Nespresso-compatible capsules, there are several important factors to consider ensuring optimal quality and functionality:



1 Type of tea and grind size

Type of tea

Different types of tea require different brewing temperatures and times. The tea selected for capsules should be suitable for extraction in a Nespresso machine. Black, green, herbal, and fruit teas each have specific requirements.

Grind size and tea cut

The tea should be ground to the appropriate size. Tea that is too finely ground may pass through the capsule filters and leave sediment in the beverage, while too coarse a grind may hinder proper extraction. Preliminary tests can indicate the direction of the process.

2 Moisture and Shelf Life

Moisture content

Tea is hygroscopic*, meaning it absorbs moisture from its surroundings easily. Therefore, the tea must be kept dry and packed in an airtight manner to preserve its flavors and freshness.

Shelf life

The tea in capsules should remain fresh throughout its shelf life, which requires airtight capsules or additional protective packaging. Check out the comment at “Capsule material”.

*Hygroscopic is an adjective that describes a substance that tends to absorb water from the air.

3 Capsule material

Compatibility

The capsules must be compatible with Nespresso machines, meaning they need to withstand the pressure and be properly punctured by the machine.

Material choice

There are aluminum capsules and those made from biodegradable materials. Aluminum capsules offer better protection against moisture and oxygen, while biodegradable capsules are more environmentally friendly. In case of biodegradable / compostable capsule material a secondary packaging is most likely necessary.

4 Dosage

Quantity

The correct amount of tea needs to be filled into each capsule to ensure optimal extraction. Too much tea could clog the machine or result in a bitter beverage, while too little tea might produce a weak brew. Again, preliminary tests can show where the journey is heading.

5 Packaging and sealing

Airtightness

To avoid oxidation and preserve flavors, the capsules must be sealed airtight.

Freshness

The sealing process should ensure that the tea remains fresh during storage and does not lose its flavor.

6 Brewing temperature and time

Optimal parameters

The capsules must be designed to ensure that the Nespresso machine extracts the tea at the correct temperature and for the appropriate duration. This can be influenced by the capsule design and the positioning of the tea within it. Please note that regular Nespresso machines have a fixed brewing temperature set for coffee. Is this temperature suitable for your tea application?

7 Testing and adjustments

Product testing

Extensive testing should be conducted before launching the product to ensure that the tea in the capsules is consistently extracted under various conditions and delivers the desired taste experience. This process is ensured by the customer.

These considerations are essential to ensure that tea in capsules delivers high quality and meets consumer expectations.



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