

ONLINE COURSE

BARISTA FOUNDATION

BY MIKAEL JASIN, WORLD BARISTA CHAMPION

LESSON 6: MILK STEAMING INTRODUCTION

CHOOSING THE RIGHT MILK

- **Whole milk** – Gives the richest, creamiest texture and sweetest flavour.
- **Low-fat milk** – Creates lighter foam, but with less body.
- **Alternative milks** – Oat, soy, almond, etc., all steam differently. Many have “barista” versions that behave more like dairy milk.

Pro Tip: Always use fresh, cold milk straight from the fridge, because colder milk gives you more time to incorporate air before it overheats.

MILK STEAMING BASICS: MICROFOAM FOR LATTES AND CAPPUCCINOS

Milk steaming is about two main stages:

1. **Stretching** – Incorporating air into the milk. This happens in the first few seconds when the steam wand tip is just below the milk surface. You’ll hear a gentle “chirping” or “kissing” sound. This adds volume and texture.
2. **Spinning** – Once you’ve added enough air, lower the steam wand slightly deeper and angle the pitcher to create a whirlpool. This folds the foam into the milk for a silky, even texture.



SYSTEMA COFFEE

LESSON 6:

ALMOND MILK

Steam to a lower temperature (53-55 °C)

Short aeration window (2-3 seconds)

Less air than dairy, wait for microfilm before pouring

Works best for smaller drinks like lattes and mochas



SYSTEMA COFFEE

LESSON 6:

SOY MILK

Steam cooler (50-55 °C)

Aeration window of 3-4 seconds

Avoid light roasts and citrusy coffees, works best with darker roasts or Robusta blends

Best suited for cappuccinos



LESSON 6:

OAT MILK

Steam hotter (55-60 °C)

Longer aeration window (4-5 seconds) with more air introduced at the start

Produces smooth microfoam, ideal for latte art

Versatile for all espresso-based drinks



LESSON 6:

COCONUT MILK

Steam to 50-55 °C with minimal aeration (1-2 seconds)

High emulsify

Keep the steam wand just under the surface to stretch thinly
(flat white style)

Works well in piccolos, flat whites, and flavoured drinks



SYSTEMA COFFEE

LESSON 6:

MACADAMIA MILK

Steam like almond milk, around 53-57 °C

Aeration window of 2-3 seconds

Richer body, blends well with other milks

Suits drier foam styles, best for cappuccinos and macchiatos



LESSON 6:

TARGET TEMPERATURE

Aim for 55–65°C (130–150°F) for optimal sweetness and texture; over 70°C (160°F), milk proteins start to break down, losing sweetness and creaminess.

Pro Tip: If you don't have a thermometer, stop steaming when the pitcher is just too hot to hold for more than 2–3 seconds.

COMMON MISTAKES TO AVOID

- **Large bubbles** – Usually from holding the wand too high above the surface for too long.
- **Flat milk** – From not incorporating enough air during stretching.
- **Overheating** – Burns the milk and dulls sweetness.
- **Dirty steam wand** – Always purge before and after steaming to avoid milk residue buildup.



HOMEWORK

Practice steaming milk to create fine microfoam, then pour it into a glass to check the consistency. It should look glossy and smooth, with tiny, uniform bubbles.

Note the temperature you stopped at and taste for sweetness, comparing it to milk that has been overheated to understand the difference.

