







THE ART OF VIENNOISERIE

FROM THEORY TO PERFECT LAMINATION

PREVIEW ONLY

CALLEBAUT®
BELGIUM 1911

COURSE AGENDA

**Upon purchasing the course you will get access to the entire workbook.
In this preview, we give you a sneak peek of theory, equipment and recipes.**

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PREVIEW

THEORY

INTRODUCING THE PLAIN CROISSANT



Introducing the Plain Croissant (Lesson 0.2)

Before exploring the various types and variations of croissant dough, let's start with the classic plain croissant. A thorough understanding of the basic ingredients and their roles is essential for comprehending how each element affects the final product. The formulation we use here will be consistent throughout the course.

Baker's Percentages

First, a quick explanation of baker's percentages for those not familiar with them. An understanding of baker's percentages can help you see at a glance how ingredient amounts are distributed, allow you to scale the recipe up or down quickly and easily, and help you predict the qualities of the final product before you even turn on your mixer.

Unlike "pure" percentages, baker's percentages express the amount of each ingredient in relation not to the total weight of the recipe, but to the weight of the flour. In baker's percentages, flour is always expressed as 100%, regardless of the recipe size or the amount of flour used.

For example, in our recipe here, the total liquid in the recipe (milk plus water) accounts for 28% of the total dough weight, but it constitutes 51% of the flour weight. Professional bakers would say that this dough has a hydration of 51%.

All of the dough recipes for this course will include baker's percentages. Non-dough recipes will give the pure percentages.



Plain Croissant Recipe (dough only)

Ingredient name	Qty (g)	Qty (%)
Bread Flour	1000 g	100%
Sugar	120 g	12%
Salt	20 g	2%
Butter #1	50 g	5%
Liquid Levain	80 g	8%
Honey	30 g	3%
Milk	260 g	26%
Water	250 g	25%
Fresh Yeast	40 g	4%

Flour (Lesson 0.3)

Flour is a fundamental ingredient in baking, yet it is often overlooked. Many bakers give little thought to the flour they use, and this is a mistake. Flour constitutes approximately 60% of a finished product, making its quality and selection critical. It is essential to use the appropriate flour for the specific product, desired outcome, and budget.

While there are many different types of flour, for viennoiserie we focus mainly on two: high-gluten flour, known in some regions as T45, and bread flour, sometimes referred to as T55 or T65.

The "T" system, used in Europe, was developed largely as a means of determining taxes for millers and bakers. The number after the "T" refers, essentially, to how much of the bran has been extracted from the flour. The higher the number, the more bran the flour contains.

It is important to note that protein content among flours of the same "T" number can vary. It is always best to check with the manufacturer for the exact protein content of the flour you are using. This information is often included on the packaging.

High-gluten flour has a higher protein content, which enhances dough strength and helps increase volume development in baked goods. However, when this flour is milled, the bran is discarded, resulting in a flour that, while very strong, has little flavour. In France and other parts of Europe, this high-gluten flour is T45 flour (T45 *gruau*), with a protein content of 14-15%.

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EQUIPMENT LIST

Most of the tools our chefs use in the videos are standard equipment in any kitchen. However, there are a few specialty items that you may wish to seek out before beginning to recreate the recipes. It is not necessary to have each of the tools listed here, and you may adapt your technique to the tools you have, but you will find that these items make the job of perfecting the recipes much easier.

Standard Kitchen Equipment

- ✓ Bench scraper / Dough cutter
- ✓ Convection or Deck oven
- ✓ Digital scale
- ✓ Food processor
- ✓ Freezer or Blast freezer
- ✓ Gloves and sanitary workwear
- ✓ Parchment paper
- ✓ Pastry brush
- ✓ Piping bags & Tips
- ✓ Planetary mixer or Spiral mixer
- ✓ Probe thermometer
- ✓ Refrigerator
- ✓ Ring cutters
- ✓ Rolling pin (French or straight)
- ✓ Ruler or Measuring tape
- ✓ Sanitising spray/ cloths
- ✓ Scissors or Snips
- ✓ Sharp paring knife or Pastry wheel
- ✓ Sheet trays or Baking trays
- ✓ Silicone mats
- ✓ Silicone spatulas
- ✓ Timer
- ✓ Whisk
- ✓ Wire cooling rack

Optional Equipment

- ✓ 3D-Printed frames
- ✓ Bicycle cutter
- ✓ Butter block mould/Parchment template
- ✓ Calliper/Thickness gauge
- ✓ Croissant templates
- ✓ Dough sheeter
- ✓ Hygrometer
- ✓ Induction burner
- ✓ Infrared thermometer
- ✓ Moulds (see more details in recipes)
- ✓ Proofing box or Controlled environment chamber
- ✓ Spray gun

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PREVIEW

Get a taste of "The Art of Viennoiserie" with this preview featuring the Chocolate and Hazelnut Pretzel Croissant recipe.

CHOCOLATE AND HAZELNUT PRETZEL CROISSANT



Yield: 25 pieces
Equipment: Silicone mould with 15 each 6 cm x 6 cm x 3 cm (60 ml) square cavities

Component 1: **Plain Croissant**

Ingredient	Qty (g)	Qty (%)
Milk	302 g	26%
Water	291 g	25%
Liquid Levain	93 g	8%
Honey	35 g	3%
Fresh Yeast	46 g	4%
Butter #1	58 g	5%
Bread flour	1162 g	100%
Sugar	139 g	12%
Salt	2 g	0.002%
Butter #2, for lamination	500 g	23%

Yield: 2150 g total (dough only)
2650 g total, laminated

Notes: You will need two recipes Plain Croissant Dough, given two double folds, with one portion used for cross-lamination (Lesson 1.5).

You will laminate a 1700-gram portion of the dough. The remaining dough will be placed on top of the packet of laminated dough when beginning the process of rolling and shaping.

Method

1. Combine all of the ingredients except the second quantity of butter in the bowl of a stand mixer fitted with a dough hook.
2. Mix for 4 minutes on speed 1, then increase the speed to 2 and mix for 7 - 9 minutes or until the dough is fully developed.
3. Divide the dough into two portions: one portion of 1700 grams and one of the remaining dough.
4. Preshape each portion into a tight round.
5. Transfer the dough to a container and allow it to rest in the refrigerator overnight. Alternatively, form the dough into an oval and wrap it tightly in plastic. Allow it to rest in the refrigerator overnight.
6. Degas the dough. Roll it to flatten and enlarge slightly to accommodate the size of the butter block.
7. Encase the butter block in the dough. Whack the dough from the middle outward to flatten the dough and distribute the butter evenly.
8. Sheet the dough down to around 1 cm thick, starting with the widest setting for the rollers and gradually working your way down.
9. Give the dough one double fold (creating four layers of butter) and allow the dough to rest in the freezer for 10 minutes.
10. Remove the dough from the freezer (no need to temper it). Sheet the dough to a thickness of around 1 cm, then give it another double fold. We have now created 16 layers.
11. Wrap the dough and store it in the refrigerator until ready to use.

Bakers percentage Pure percentage

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Component 2: **Cocoa Croissant**

Ingredient	Qty (g)	Qty (%)
Water	210 g	54%
Fresh Yeast	19 g	5%
Butter, #1	19 g	5%
Bread Flour	390 g	100%
Sugar	46 g	12%
Salt	6 g	2%
Callebaut Botanical Noir Intense Cocoa Powder	19 g	5%
Butter #2, for lamination	178 g	23%

Yield: 887 g (dough only), 1065 g total, laminated

Method

1. Combine all ingredients except the second quantity of butter in the bowl of a stand mixer fitted with a dough hook.
2. Mix for 4 minutes on speed 1, then increase the speed to 2 and mix for 7 - 9 minutes or until the dough is fully developed.
3. Preshape the dough into a tight round.
4. Transfer the dough to a container and allow it to rest in the refrigerator overnight. Alternatively, form the dough into an oval and wrap it tightly in plastic. Allow it to rest in the refrigerator overnight.
5. Degas the dough. Roll it to flatten and enlarge slightly to accommodate the size of the butter block.
6. Encase the butter block in the dough. Whack the dough from the middle outward to flatten the dough and distribute the butter evenly.
7. Roll the dough out to approximately 1 cm thick, starting with the widest setting for the rollers and gradually working your way down.
8. Give the dough one double fold (creating four layers of butter) and allow the dough to rest in the freezer for 10 minutes.
9. Remove the dough from the freezer (no need to temper it). Sheet the dough to a thickness of around 1 cm, then give it a single fold. We have now created 16 layers.
10. Wrap the dough and store it in the refrigerator until ready to use.

Component 3: **Chocolate Pastry Cream**

Ingredient	Qty (g)	Qty (%)
Eggs	100 g	11%
Sugar	50 g	6%
Bread flour	40 g	4%
Milk	500 g	56%
Callebaut 811 Dark Chocolate 54%	200 g	22%

Bakers percentage Pure percentage

Method

1. In a bowl, whisk together the eggs, sugar, and flour.
2. In a saucepan, bring the milk to a boil.
3. Temper a small amount of the hot milk into the egg mixture, whisking constantly.
4. Return the saucepan to the heat and cook on medium heat until it returns to a simmer.
5. When the mixture is simmering, add the egg mixture in a slow, steady stream while whisking constantly.
6. Bring the pastry cream to a boil, stirring constantly.
7. Continue to cook the mixture for an additional 3-4 minutes after it boils, to remove as much moisture as possible.
8. Pour the hot mixture over the chopped chocolate and stir to combine.
9. Emulsify completely using a hand blender.
10. Spread the cooked pastry cream in a frame placed on a sheet pan lined with a silicone mat.
11. Transfer the sheet pan to a blast freezer. Freeze until the pastry cream is completely solid.
12. Use a bicycle cutter to mark 5 cm x 5 cm squares. Then cut the squares using a knife.
13. Reserve the squares in the freezer until ready to use.



CALLEBAUT BOTANICAL EXPERIENCE NOIR INTENSE COCOA POWDER

Bold Cocoa with Dark Coffee and Alkali notes.

View product

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TROUBLESHOOTING

PROBLEM	REASON	SOLUTION
After I proofed the croissants, the layers are no longer visible.	Overproofing or proofing at too high a temperature can cause the butter to be absorbed into the dough.	Stick to the time/temp guidelines and use gentle handling.
The croissants burst open during baking.	This can be due to underproofing. The yeast continues to expand rapidly in the oven ("oven spring"), and the dough tears. A dough that is too strong can also cause bursting	Ensure the dough has proofed for a sufficient amount of time. Check that you are using the right flour or adjust your ratio of flours.
My dough tears during the lamination process.	The butter may be too cold, or the dough may be too warm.	Aim to have both at the same consistency before laminating. Rest the dough in the fridge if it's too soft, or let it sit a few minutes at room temp if it's too stiff.
The butter is leaking out of the croissants during baking.	This often means the butter was exposed due to improper sealing or tearing during lamination.	Ensure the dough fully encases the butter, and allow the dough to rest sufficiently.
My dough keeps shrinking back when I try to roll it out.	This is a sign of gluten overdevelopment/excess dough strength or insufficient rest.	Let the dough relax in the fridge before continuing, and be sure you are allowing it to rest for long enough. Avoid overmixing during the initial mix. Check that you are using the right flour or adjust your ratio of flours.
I can't control the proof properly.	No commercial proofer or other proofer set up.	You can create a homemade proofing box using an oven with the light on or a closed microwave with a bowl of hot water inside. Those in commercial kitchens can use an enclosed sheet pan rack with a source of heat and humidity. It should feel warm and humid, but not hot.
I can't freeze the dough quickly.	No blast freezer.	Use your regular freezer, but extend the chill time. Just be careful not to freeze the dough solid. Monitor consistency over time.
I need to substitute dry yeast in the recipes.	Fresh yeast isn't available to me, or it isn't practical for my situation.	You can substitute dry yeast for fresh yeast. The general rule is to use one-third of the amount. For example, if a recipe calls for 30g of fresh yeast, use 10g of dry yeast.

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PREVIEW

OUR CHEF'S PRODUCT RECOMMENDATIONS



CHOCOLATE

Callebaut Selection



Callebaut 811 Dark Chocolate 54%
2.5 kg
View product



Callebaut 823 Milk Chocolate 33%
2.5 kg
View product

Callebaut Signature Collection - Blend of Origins



Callebaut Rustic Experience Fleur de Cao Dark Chocolate 70%
1 kg
View product

CHOCOLATE CHIPS



Callebaut Baking Drops XS
10 kg
View product

COCOA POWDERS



Callebaut Velvet Experience Légère 1% Cocoa Powder
0.75 kg
View product



Callebaut Botanical Experience Noir Intense Cocoa Powder
1 kg
View product

NUT PRODUCTS



Callebaut Hazelnut Praliné
5 kg
View product



Callebaut Gianduja Pale
View product

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CHOCOLATE BASICS

TEMPER, MOULD, MASTER

BY RAMON MORATÓ

In this class you will learn

- The theory from cocoa to chocolate.
- All about tempering & crystallisation of chocolate.
- How to choose the right chocolate for your product.
- Tablets, spreads, hollow figures, swiss rocks.

If you want to become the master of taste, this is where you begin.

JOIN THE CLASS!

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