

Swiss Bakery & Confectionery

CRAFT AND TECHNOLOGY (THE APPRENTICES GUIDE)

Richemont

Small bread and small pastry

Small bread can be made from any regular and special bread. In the baking industry these small bread types are divided into:

Group “small bread”
Rolls – water is used as dough liquid for the production.

Group “small pastry”
Rolls – milk is used as dough liquid for the production.

Small bread


Rosette roll

Examples
- roll
- rosette roll
- poppy seed roll

Typical properties

Crust	due to the dough liquid and composition very different from crispy, finely splintery to finely foliated
Crumb	regular to irregular porosity
Flavour	due to the recipe very different with typical grain characteristics, typical flavours of the raw materials such as butter, fruits, nuts, oilseeds etc.

Small pastry


Butter roll

Examples
- butter roll
- lye roll
- brioche

Typical properties

Crust	due to the dough liquid and composition very different, from soft to crisp
Crumb	fine to regular porosity
Flavour	due to the recipe very different with typical grain characteristics, typical flavours of the raw materials such as butter, fruits, nuts, oilseeds etc.

Pastry

Pastries consist of dough or pastes. In bakery and confectionery this can be for example sweet yeast dough, Danish pastry dough, grated dough, shortcrust. Additional ingredients for these types of dough are: milk and milk products, cocoa, chocolate, couverture, honey, spices, nuts and fruit preparations. The pastries can also be glazed. There is a distinction between small and big yeast pastry (unfilled, filled, sheeted).

Small yeast pastries, unfilled



Single strand braid

Examples

- single strand braided roll
- sugar roll
- cinnamon twist

Typical properties

Surface	soft, pleasant, with different toppings
Crust	fine regular porosity, elastic
Flavour	due to the recipe very different, lemon or vanilla flavour is often used
Tip	As these pastries are not filled, they have to be baked light and tight to keep them moist for longer periods.

Small yeast pastries, filled



Hazelnut roll

Examples

- hazelnut roll
- vanilla roll
- croissants viennois

Typical properties

Surface	soft, pleasant, partly also glazed with apricot jam
Crumb	fine regular porosity, moist, with different fillings
Flavour	due to the recipe very different, fillings with nuts, creams, jams and fruits

Small yeast pastries, with sheeted dough



Almond croissant

Examples

- almond croissant
- carnival pastry
- Danish pastry with fruits

Typical properties

Surface	apricot glazed and glazed
Crumb	finely foliated, moist, with different fillings
Flavour	due to the recipe very different, cardamom flavour is also added to Danish pastry dough, fillings with nuts, creams, jams and fruits



Nougat eggs

Use nougat recipe 1:2 with flaked almonds for the production.

Nougat eggs



Production

Roll out nougat to oval pieces 2–3 mm thick. If required, heat it in the oven at 120–140 °C, until optimum consistency is obtained. Press into metal egg moulds and cut off excess edge with scissors.



Finishing

To protect against moisture, spray immediately with edible spray lacquer or cocoa butter.

Honey nougat (soft nougat)



Honey nougat

This is a nougat variation. By replacing sugar for honey (fully or partially) and by adding cream, a soft consistency (similar to soft caramel) is obtained. The production of different types of caramel you will find in the section sugar processing on page 570.

Composition

Honey nougat consists of the following raw materials:

- honey
- sugar
- cream
- glucose syrup
- almonds

Honey

Adding honey creates a special, intense flavour. The combination of honey and almonds compliments each other well.

Cream

A creamy, soft structure is obtained through the butterfat content.

Glucose syrup

The risk of sugar recrystallization is reduced.

Recipe example

Honey nougat (2 650 g)

1 200	g	honey
600	g	cream
150	g	glucose syrup
		boil to 117 °C
700	g	flaked almonds
		add, mix and process immediately



Honey nougat pralines

Production method



Boiling
Boil honey, cream and glucose syrup together to 117 °C.



Adding almonds
Mix preheated flaked almonds.



Pouring
Pour mixture into an oiled frame (10–15 mm thick) on a silicon mat.



Processing
Place silicon mat on top and roll smooth with rolling pin. To obtain two smooth sides, turn over frame and allow to cool.



Cutting and finishing
Cut with a sharp knife by constantly moving it back and forth. Dip the cut pieces in couverture immediately, otherwise there is a risk of flowing.

Nougat Montélimar (white nougat)



Nougat Montélimar

Nougat Montélimar is the name for an Italian meringue with honey and various kernels and dried fruit. Additional information on Italian meringue you will find on page 324.

Composition
Nougat Montélimar consists of the following raw materials:
- egg white
- sugar
- honey
- glucose syrup
- nuts, kernels
- confit fruit

Egg white
The beaten egg whites produce a light, airy product.

Kernels and fruit
Confit fruit (e. g. cherries) should be dried in the warming cupboard to avoid discolourations of the nougat. Additional information on confit fruit you will find on page 568.

Poolish

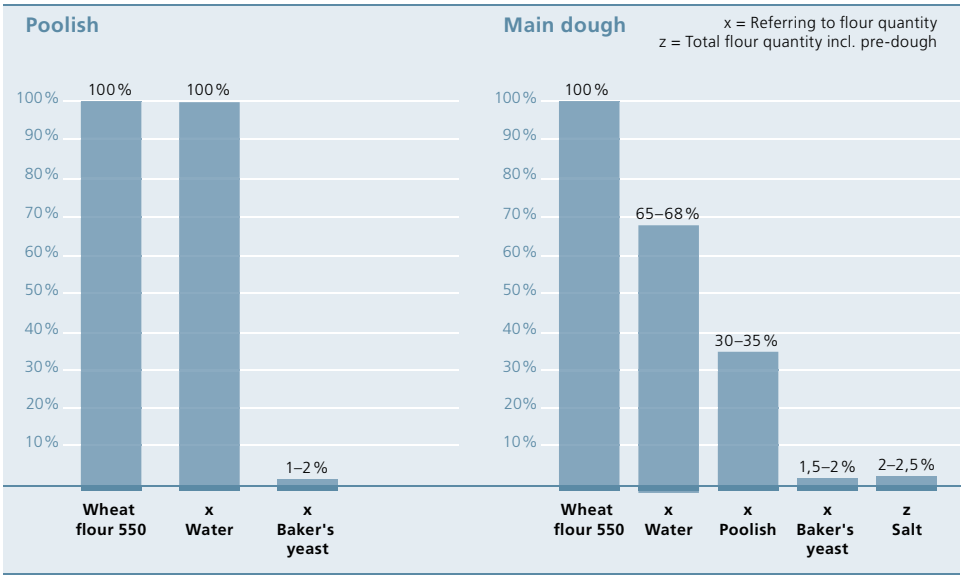


Poolish

This leavening process gives a less distinct taste with a strengthening of the gluten forming proteins gliadin and glutenin. The poolish ratio is 50 % of the total dough liquid. This method is especially suitable for products which have to show a crisp, fine splintery crust.

The raw materials are briefly mixed; the dough formation takes place during fermentation. When choosing the container for the poolish, make sure it has the right form so the poolish can rise to its proper height. The poolish has to start fermenting at room temperature for one hour after mixing. Then it can be stored in the cold room at 2–5 °C for up to 48 hours.

Recipe example



Fermentation period (room temperature 24 °C)	Yeast quantity (on flour quantity)	Dough temperature
poolish 60 minutes, then store at 2–5 °C for up to 48 hours	1–2 %	22–24 °C
main dough 1–2 hours	1.5–2 %	22–24 °C

Note
The high water content promotes a quicker cooling of the dough. This results in a lower flavour formation because of the reduced activity.

Poolish development

An intensive swelling of the gluten forming proteins takes place through the mixing ratio 1 part water and 1 part wheat flour.



Poolish freshly made

Fresh poolish does not fulfill the requirements of the final product regarding flavouring agents and freshness.



Poolish fully developed

The poolish is ready for dough production when there is an intense bubble formation on the surface.



Poolish over-fermented

- collapsed
- no stability
- consistency increasingly liquid
- unsuitable for fermentation



Poolish from rye flour

Poolish from rye flour

Besides the traditional wheat poolish, rye poolish is a variation for the production of special breads. The production process is identical, only the water quantity has to be doubled.

Products made with this method achieve increased quality (compared to wheat poolish) in the following assessment criteria:

crust structure	crisp, tender
crumb structure	moist, elastic
smell and taste	distinct

Reason

The double water quantity is bound through the water-soluble materials in the rye flour. The starch gelatinization during the baking process starts at 55–70 °C, compared to wheat starch, where it takes place from 65–85 °C. The crumb stays moist longer because of higher hydration and lower gelatinization.



Poolish is used e.g. for parisette production.

Production method



Dissolving the baker's yeast

Dissolve the baker's yeast in the water (23–25 °C).

Reason

As there is no kneading process during the poolish production, it is important to dissolve the baker's yeast for obtaining a regular fermentation process. As the enzyme activity is very low, no salt is added.



Mixing phase

Add flour to the water/yeast mixture and combine it in a mixer or by hand without lumps.

Poolish temperature 23–24 °C



Container

When choosing the container ensure that it has capacity for the poolish to rise upwards by 2 to 3 times its height. A flat container should not be used as this has a detrimental effect on fermentation.

Reason

- optimum fermentation development
- stable dough structure



Maturation

After the poolish is placed in the container it has to be activated for 60–90 minutes at room temperature in order to start the fermentation. Then it can be stored for up to 48 hours at 2–5 °C.

Note

The maturation is completed, when a bubble formation is visible on the surface.



Pastry with a glazed surface



Variation: Scraping off
The surface is spread with jelly for an oblong shape, like e.g. the channel mould. The excess jelly is removed with a piece of plastic wrap or release paper.



Variation: Multi-coloured
Special effects can be obtained by using multi-coloured jelly.

Coating technique

Couverture, coating, chocolate glaze



Cake enrobed with couverture

Cakes, pastries
The whole product is coated with this technique.



Equipment for the coating of products
- plate
- grid
- scoop
- palette knife and long knife
- sheet with release paper
- clean cloth



Glaze quantity
Pour the right amount of glaze on the product.

Processing temperatures

couverture	31–33 °C
coating	35–40 °C
chocolate glaze	35–40 °C

Note
The product should not be cold, temperature 20–22 °C.



Smoothing of surface
Smooth the surface with a knife or spatula (sufficient length). Scrape off the glaze to obtain a thin, regular coating.



Shaking
Short shaking of the grid to let the excess glaze run off before it solidifies.



Placing
Carefully place the cake on release paper.

Stabilized fruit creams, fruit puree, semi-liquid cream



Pastry coated with fruit cream or semi-whipped cream

Cakes, pastries, ice cream desserts
With this technique the whole product is coated or just the surface is glazed. Instead of glazing the term napping is also often used.



Fruit cream
Processing temperature of the glaze 30–40 °C.
Add 1.5 % dissolved gelatine to a fruit creme (30 °C).
The cream can be poured over the frozen product.

Additional information on fruit creams you will find on page 351.



Semi-whipped cream
Processing temperature of the glaze 5–10 °C.
Flavoured, semi-whipped cream is poured over the product.

Marzipan, gianduja, modelling sugar paste



Pastry covered with marzipan

Cakes, pastries, confectionery pieces
This technique does not use a liquid mixture but a firm paste, which is rolled out and put over the product.



Marzipan
Apricot-glaze the filled biscuit shells and cover them with 2–3 mm thinly rolled out marzipan.

Tip
Spread syrup on the marzipan.



Gianduja
The filled biscuit is coated with 1.5–2 mm thinly rolled out gianduja.

Additional information on gianduja you will find on page 375.



Modelling sugar paste
The diameter of the cake is measured and the paste rolled out to the right size and thickness. The cake is placed on a ring. Coat it with the rolled out paste and smooth it. Decorating the edge makes a perfect finish.

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This new book about the basics in bakeries and confectioneries represents the complete works on the production knowledge of our industry. It serves as teaching materials for the basic education of young bakers and confectioners, as a source for exam preparations or simply as a reference text for the work routine.

All contents are either new or revised, compiled or completed and correspond to the current state of knowledge. Much emphasis was put on illustration details to support the different subjects.

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