

## **Chapter 5**

### **FLOUR PASTRIES**

- ❑ The term pastry comes from a word paste meaning in this case a mixture of flour, liquid and fat.
- ❑ In the bake shop pastry refers both to various pastes or dough and to the many products made from this dough.

#### **CLASSIFICATION OF PASTRIES**

The basic ingredients are the same for all pastries but the difference is between the amount of fat and the method of incorporating fat.

1. Short crust pastry
2. Choux pastry
3. Hot water crust pastry
4. Puff pastry
5. Flaky pastry
6. Rough puff pastry
7. Danish pastry
8. Filo / phyllo pastry

#### **PRINCIPLES OF PASTRY MAKING**

- Good mixing technique is the basis of good pastry.
- Majority of the pastry dough's need cool conditions. Strudel and hot water paste require warm conditions.
- The ratio of flour to fat depends on the type of pastry.
- It is important to have the correct amount of liquid for mixing. The amount of water should be adjusted according to the different types of flour.
- Dough's need resting and they should be allowed to relax after rolling.
- Do not turn the pastry over but turn the pastry around.
- When baking, ovens must be always preheated to the correct temperature before placing any pastry in the oven.

## 1. SHORT CRUST PASTRY

- Its main characteristic is that it is light & crumbly
- It is used for pie, tart, sweet & savory dishes
- The proportion of fat used is half that of flour
- The rubbing method is used till it looks like particles of bread crumbs
- Flan pastry is a variation of the short crust pastry , less amount of fat is used & eggs are added
- The main basic Ingredients for pastry are flour, fat and sugar usually in the ratio of 1 part sugar, 2 parts fat and 3 parts flour— (1 : 2 : 3). The fat content is generally 40 – 80 %.

Following are the essential ingredients:

- **Flour:** The flour should be soft (Pastry Flour)
- **Fat:** Preferably butter should be used. It gives flavor. The fat / butter or commercial short paste margarine give the paste better handling properties
- **Sugar:** Castor sugar or icing sugar is recommended. They are more readily soluble which has a softening effect on the gluten in the flour, in turn influencing the shortening properties in the paste.

Methods of making short crust pastry

### A) Rub in

- Sieve the flour with dry ingredients
- Fat and flour is rubbed together till resembles like bread crumbs
- Mix the sugar
- Add required water or egg to form a dough

### B) Creaming

- Cream the fat / butter and equal quantity of flour
- Add sugar
- Add remaining flour (sifted with dry ingredients)
- Add liquid to form a dough

Baking Techniques:

#### 1. Docking

- Small holes are made in pastry.
- Aim is to allow steam to escape during baking to avoid distorting the pastry.

## 2. Blind Baking

- Pastry without fillings is baked with beans to keep the shape and prevent it from shrinking or rising during baking.
- Dock the pastry before blind baking.

### **Recipe & Method Of Preparation**

Flour- 115 g

Fat- 60 g

Cold water-to mix

Powder Sugar- 5 g

Baking powder- ¼ tsp (optional)

1. Sieve flour, baking powder & powder sugar
2. Rub in fat lightly with the finger tips until it resembles breadcrumb
3. Mix with cold water to make a dough & keep in refrigerator

## **2. CHOUX PASTE**

- Choux paste is a versatile partially pre-cooked paste that can be baked for use in pastries and gateaux, fried for use in potato dishes and fritters or boiled in Gnocchi dishes.
- Pastry products made from choux paste include éclairs, profit roles and many others.

### Ingredients used for Choux Paste:

- **Flour:** Medium or strong flour should be used because higher gluten level will provide good elasticity.
- **Fats:** Only butter should be used as it gives flavor to the product.
- **Eggs:** The quantity of eggs will depend on the degree of cooking, type and amount of flour and fat used.

### **Recipe & Method Of Preparation**

Water- 500 ml

Butter- 250 g

Salt- 5 g

Bread flour- 375 g

Eggs- 625 g

1. Combine the water, butter, salt in a heavy saucepan. Bring the mixture to a full, rolling boil
2. Remove the pan from heat & add flour all at once, stir quickly
3. Return the pan to moderate heat & stir vigorously until the dough forms a ball & pulls away from the side of the pan
4. Transfer the dough to the bowl of mixture
5. With the paddle attachment , mix at low speed until the dough has cooled slightly.
6. At medium speed , beat in the eggs a little at a time. Add no more than a quarter of the eggs at once & wait until they are completely absorbed before adding more. When all the eggs are absorbed , the paste is ready to use

### **3. HOT WATER CRUST PASTRY**

- Hot water crust pastry may be used for lining small or large cake tins to make pies of various shapes
- Large pies needs a longer cooking time. Veal & ham, pork or game require about two hours.

#### **Recipe & Method Of Preparation**

Refine flour- 450 g

Lard/butter- 115 g

Water- 600 ml

Egg- to glaze

Savory filling- 450 g

Salt- 1 tsp

1. Put fat & water into a pan & bring to the boil
2. Pour into the centre of sieved flour & salt
3. Make quickly into a dough with a wooden spoon
4. Turn on to a slightly floured board & knead until the paste is smooth & free from cracks.  
Keep pastry warm in a bowl covered with a cloth

5. Mould a portion of the paste with the fingers to form a pie case. It becomes firm when cold & keep its shape.
6. Fill with savory filling.
7. Make a lid from another portion of the filling
8. Dampen the edges of the pastry & pinch firmly together
9. Using kitchen scissors, cut the sealed pie edge at 1.5 cm interval all round bend in alternate pieces of pastry
10. Make a hole in the centre to allow steam to escape
11. Glaze the pie with beaten egg
12. Bake at 230°c till pastry is slightly browned & set
13. Reduce the heat & cook for about 40 minutes

#### **4. PUFF PASTRY**

The mixture of flour, fat, sugar, chilled water and some food acid (like lime juice, vinegar & tartaric acid) and this dough is sheeted and laminated with fat to get the flakiness.

Essential ingredients used for puff pastry:

- **Flour:** Flour with a high percentage of gluten is required for elasticity (Strong flour).
- **Fats:** Butter undoubtedly produces the most deliciously flavored puff pastry. Margarine can also be used (plastic in nature)
- **Salt:** Stabilizes the gluten and improves the flavor
- **Lemon Juice:** Improves the elasticity of the gluten & dough elasticity, Vinegar or tartaric acid can also be used.
- **Chilled water:** It controls the dough temperature and prevents fat from melting

#### **Recipe & Method Of Preparation**

Bread flour- 500 g

Salt- 10 g

Butter, melted- 75 g

Water- 250 ml

Butter for rolling in- 300 g

Lemon juice – 2.5 ml

1. Mix the flour & salt. Place the flour in a mould on a work surface & make well in the center
2. Pour the melted butter , lemon juice & water into the center of the well. Gradually stir from the inside outwards to incorporate the flour into the liquids, making a dough
3. Once the dough has formed, knead briefly until it is smooth
4. Wrap in plastic film & allow to rest for 30 minutes in the refrigerator
5. Roll the dough out into a large rectangle
6. Place the butter between two sheets of the plastic film to soften it & flatten it out by beating it with a rolling pin
7. Remove the plastic from the rectangle of butter & place it on the bottom two third of the dough rectangle. Fold top third of the dough down over the center to cover half of the butter. Fold the bottom one third over the center. Butter is now enclosed in the dough , making two layers of dough
8. Give the dough 4 four folds. This will give the dough 1024 layers of dough & butter. Rest the dough in a cool place between folds to allow the gluten to relax or give 6 three folds.

### **Puff Pastry Faults & Their Causes**

<b>Fault</b>	<b>Possible causes</b>
Shrinkage during baking	Dough not relaxed before baking
Poor lift or rising	Too little or too much fat used Dough rolled out too thin or given too many turns
Uneven lift or irregular shape	Improper rolling in procedure Uneven distribution of fat before rolling Dough not relaxed before baking Uneven heat in oven
Fat running out during baking	Too much fat used Not enough turns given Oven too cool

#### **4. FLAKY PASTRY**

A flaky pastry is judged by the thickness & crispiness of the layer which is due to the equal distribution of fat

##### **Recipe & Method Of Preparation**

Refine flour-225 g

Salt- ½ tsp

Lemon juice- 1 tsp

Margarine – 170 g

Ice cold water- to mix

Rice flour for dusting

Egg for coating

1. Sieve flour with salt
2. Add water & lemon juice to flour & knead to a smooth & soft dough
3. Keep dough covered under a wet cloth for at least 20-25 minutes
4. Divide the margarine into 3 parts
5. Roll the dough into a rectangular shape
6. Put one part of the margarine in flakes on 2/3 of the rectangle leaving 1.5 cm edge all around
7. Fold into three folding in empty portion first
8. Repeat process twice more to use up all the margarine & once without putting in margarine
9. Rest the pastry wrapped in greaseproof paper in a cool place for at least 45 minutes
10. Roll , cut & place the pastry on a watered baking sheet . Brush with egg yolk before baking
11. Bake first at 230°c for about 10 minutes . Take out, cool
12. Bake again for about 15 minutes at 150°c

## 5. ROUGH PUFF PASTRY

### Recipe & Method Of Preparation

Refine flour- 225 g

Lemon juice- 1 tsp

Butter -150-170 g

Ice cold water-

Salt- 1 tsp

1. Sieve the flour with salt
2. Add fat cut into small cubes
3. Mix with cold water & lemon juice to make stiff dough
4. Turn onto a lightly floured board & roll into a rectangle keeping the edges straight
5. Fold the bottom third of the pastry up & top third down. Seal the edges lightly with a rolling pin.
6. Keep aside 15 minutes in a cool place
7. Turn the pastry so that the folded edge is on your right. Repeat the rolling, folding & turning process three or four times
8. Roll out & use as required.
9. Bake at 250° c for about 15-20 minutes

## 6. DANISH PASTRY

- This is a sweet puff pastry made from rich, sweet fermented dough.
- The dough is partly aerated by fermentation and partly by lamination.
- The paste is made up of flour, egg, milk, yeast, sugar, salt and fat
- The remaining fat is incorporated by the rolled in method [using 3 fold].

### Rolling In Procedure

- The rolling in procedure has two major parts, enclosing the fat in the dough & rolling out & folding the dough to increase the number of layers
- There are two basic rolled in yeast dough:

1. Danish pastry dough, croissant style



## 2. Danish pastry dough, brioche style

### 1. Danish pastry dough, croissant style

- Resembles a puff pastry with the addition of yeast
- It is based on a dough made of milk, flour, a little sugar & yeast
- The rolled in butter gives the dough its flaky texture

### **Recipe & Method Of Preparation**

Water- 200 ml

Yeast- 40 g

bread flour- 150 g

Sugar- 80 g

Salt- 25 g

Milk- 350 ml

Water-50 g

Bread flour-950 g

Butter- 600 g

1. In a bowl, mix yeast & water . Sprinkle the first quantity of flour over the mixture
2. In another bowl, mix the sugar, salt, milk & water until the solids are dissolved
3. Sift the flour& add it to the yeast mixture. Add the liquid mixture, being mixing to form a dough
4. Mix just until a uniform dough is formed. Continue mixing by hand
5. Finish by kneading the dough on the countertop
6. Cover & allow to ferment for 40 minutes at room temperature
7. Punch down & place in refrigerator for 1 hour
8. Incorporate the butter & give 3 three folds

### 2. Danish Dough, Brioche Style

- It is a richer dough containing eggs, but not rich in eggs as regular brioche
- This dough also called flaky brioche

### **Recipe & Method Of Preparation**

Milk- 225 g

Yeast- 40 g

bread flour- 800 g

Eggs- 100 g

Butter- 50 g

Sugar- 80 g

Salt- 10 g

Sugar- 50 g

Milk- 75 ml

Butter- 500 g

1. In a bowl, mix first quantity of milk with yeast
2. Sift the flour on the top of the yeast mixture, add eggs & melted butter
3. Dissolve the sugar & salt in the second quantity of milk, add to the bowl
4. Mix for 1 ½ minutes with the dough hook to form a dough
5. Place the dough in a mixing bowl, cover & let it ferment 30 minutes at room temperature
6. Punch down the dough & rest in the refrigerator for 45 minutes
7. Incorporate the last quantity of butter & give 3 three folds
8. Roll & shape as required
9. Both the dough are used in making Danish pastries, although only the first one is generally used for croissants

## **8. FILO OR PHYLLO PASTRY**

This is plain paper thin pastry made with flour, water and melted butter.

This dough is sheeted and sprinkled with fruits and nuts & roll like Swiss roll and cut into desired sizes.

### **Recipe & Method Of Preparation**

Flour – 1 kg

Salt – 15 g

Melted butter – 70 g

Warm water – 560 ml

Eggs – 4 nos.

1. Sieve the flour twice & mix salt
2. Beat the egg & mix with water & melted butter
3. Make a bay in the center & mix the egg mixture

4. Stir with finger gently & knead it until it becomes smooth ball
5. Cover it with wet cloth & give rest with for one hour
6. Cover the table with a cloth dusting with flour then place the dough in the centre & stretch with hand as thin as possible
7. Sprinkle with the filling & roll it like Swiss roll by lifting the cloth
8. Cut & give the egg wash
9. Give rest for 20 minutes & bake at 200°c for about 15-20 minutes

Types	Proportion	Method of Incorporation of Fat	Examples
<b>Short Paste</b>			
Short Crust	1 : ½	Rub – in	Pie, Tart, Barquette
Hot Water Crust	1 : ½	Melted	Pie, Tart, Barquette
Choux	1 : ¼ to ½	Melted	Éclairs, Profit Rolls, Croque en bouche,
<b>Puff Paste</b>			
Puff Pastry	1 : 1	Folded as Blocks in the paste	Mille Feuille
Flaky Pastry	1 : 2/3	Added in Lumps in paste	Cheese Straws, Cream Horns, Puffs, Vol – au – vents
Danish Pastry	1 : 3/4 <sup>th</sup>	Added as Lumps in Paste	Croissants, Pinwheels etc.
Rough puff pastry	1:1/2 to/2/3	Add in lumps in flour	Cheese straws, turnovers, shells
Phyllo pastry	-	Add melted in paste	Baklawa, strudel, Parcels