

# “Essential Tips and Techniques in Baking and Pastry Making for Beginners”



# Importance Notes on Pastry and Baking Tips for Beginners

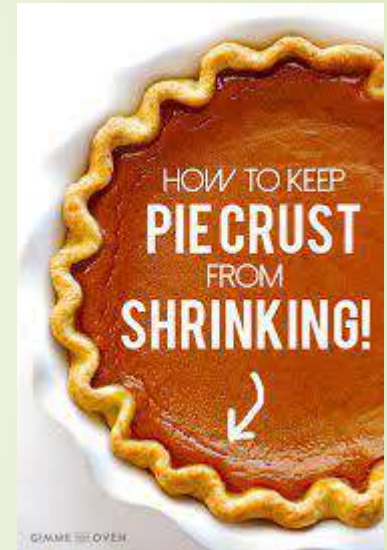
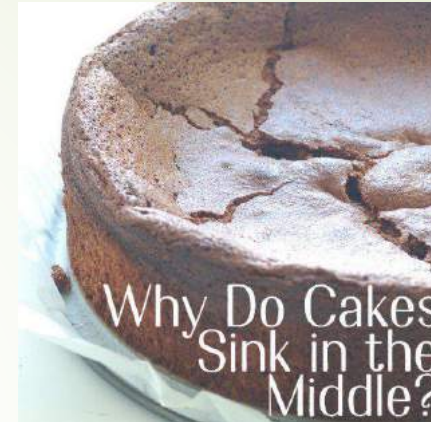
Understanding of Ingredients

Understanding Basic Baking Principles

What is Formulation and How its work?

Technical Aspect (Method, Technical Terms, Equipment)

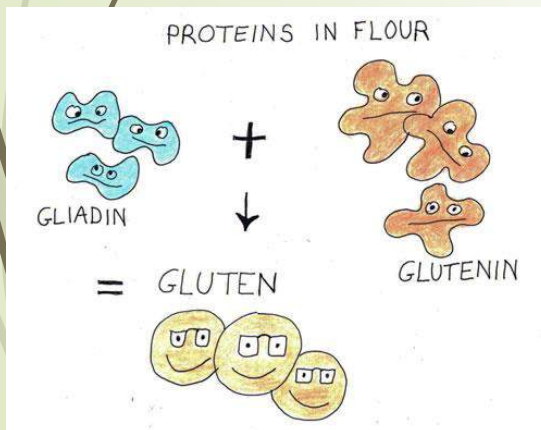
Trouble Shooting



# Importance Notes on Pastry and Baking Tips for Beginners

## Understanding of Ingredients - Flour

**WHEAT FLOUR IS the most important ingredient in the bakeshop. It provides bulk and structure** to most of the baker's products, including breads, cakes, cookies, and pastries.



# Importance Notes on Pastry and Baking Tips for Beginners

## Understanding of Ingredients - Sugar

**SUGARS OR SWEETENING** agents have the following purposes in baking:

- ## They add sweetness and flavour.
- ## They create tenderness and fineness of texture, partly by weakening the gluten structure.
- ## They give crust colour.
- ## They increase keeping qualities by retaining moisture.
- ## They act as creaming agents with fats and as foaming agents with eggs.
- ## They provide food for yeast.



*Isomalt*

# Importance Notes on Pastry and Baking Tips for Beginners

## Understanding of Ingredients - Fat

**THE MAJOR FUNCTIONS of fats in baked items are:**

- 1) To add moistness and richness.
- 2) To increase keeping quality.
- 3) To add flavour.
- 4) To assist in leavening when used as a creaming agent, or to give flakiness to puff pastry, pie dough, and similar products.

Many fats are available to the baker. Each has distinctive properties that make it suitable for different purposes. Among the properties a baker must consider when selecting a fat for a specific use are its melting point, its softness or hardness at different temperatures, its flavour, and its ability to form emulsions



# Importance Notes on Pastry and Baking Tips for Beginners

## Understanding of Ingredients - Eggs

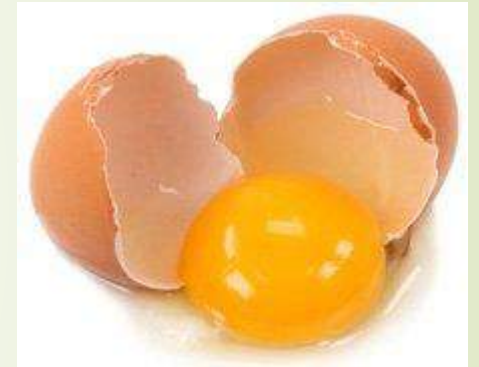
Eggs perform the following functions in baking:

### 1. Structure.

Like gluten protein, egg protein coagulates to give structure to baked products.

This is especially important in high-ratio cakes, in which the high content of sugar and fat weakens the gluten.

If used in large quantities, eggs make baked products more tough or chewy unless balanced by fat and sugar, which are tenderizers.



# Importance Notes on Pastry and Baking Tips for Beginners

## Understanding of Ingredients - Eggs

- 2. Emulsifying of fats and liquids.** Egg yolks contain natural emulsifiers that help produce smooth batters. This action contributes to volume and to texture.
- 3. Leavening.** Beaten eggs incorporate air in tiny cells, or bubbles. In a batter, this trapped air expands when heated and aids in leavening.
- 4. Shortening action.** The fat in egg yolks acts as a shortening. This is an important function in products that are low in other fats.



# Importance Notes on Pastry and Baking Tips for Beginners

## Understanding of Ingredients - Eggs

### 5. Moisture.

Eggs are mostly water. This moisture must be calculated as part of the total liquid in a formula. If yolks are substituted for whole eggs, for example, or if dried eggs are used, adjust the liquid in the formula to allow for the different moisture content of these products.

### 6. Flavour.

### 7. Nutritional value.

### 8. Color.

Yolks impart a yellow color to doughs and batters. Also, when baked in doughs, eggs brown easily and contribute to crust color.





# Importance Notes on Pastry and Baking Tips for Beginners

## Understanding of Ingredients – Leavening Agents



**Chemical**



**Steam**



**Yeast**



# Essential Basic Pastries Dough in Pastry Kitchen

## Short Pastries

**Pâte Brisée**  
(Short crust Pastry)

➤ Broken

The most basic dough  
Common ingredients: butter,  
flour, salt and cold water

**Pâte Sucrée**  
(Sugar crust Pastry)

➤ Sweet

Similar to pâte brisée except  
with confectioners sugar.

**Pâte Sablée**  
(Short bread Pastry)

➤ Sandy

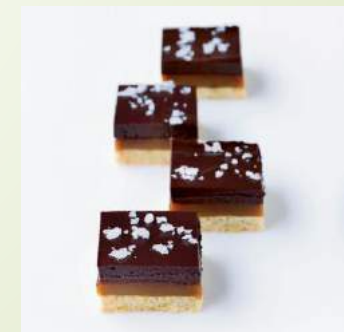
Rich in flavor, with higher sugar  
ratio suitable for dessert, fruit  
tart and biscuits.



*Quiche Lorraine*



*Apple Pie*



*Shortbread*



*Tartlet*

# Essential Basic Pastries Dough in Pastry Kitchen

## Short Pastries 1 - Pâte Brisée (Short crust Pastry)



**Pâte brisée (short crust)** (pronounced *pot bree ZAY*), which literally means “broken dough,” is mixed using the same method as mealy pie dough—the fat is first combined with the flour.

In classical pastry, this is known as **sablage (sah BLAHZH)** or the **sanding method** or **rubbing method**.

The *fat* and flour are mixed until the mixture resembles coarse meal or sand. Coating the flour with fat protects it from absorbing water, and therefore limits gluten development. This results in tender pastry.

Pâte brisée is usually used for large tarts and savoury pie.



# Essential Basic Pastries Dough in Pastry Kitchen

## PÂTE BRISÉE

*For large-quantity measurements, see page 732.*

Ingredients	U.S.	Metric	%	<b>PROCEDURE</b>
Pastry flour	12 oz	400 g	100	
Salt	0.3 oz (1¼ tsp)	10 g	2.5	
Sugar	0.3 oz (1½ tsp)	10 g	2.5	
Butter, chilled	6 oz	200 g	50	
Eggs	4 oz	130 g	33	
Water	0.6 oz (4 tsp)	20 g	10	
Vanilla extract	4 drops	4 drops		
Lemon zest, grated	0.12 oz (1½ tsp)	4 g	1	
<b>Total weight:</b>	<b>1 lb 7 oz</b>	<b>774 g</b>	<b>199 %</b>	

# Essential Basic Pastries Dough in Pastry Kitchen

## Short Pastries 2 - Pâte Sucrée (Sugar crust Pastry)



**Pâte sucrée** (soo CRAY) means “sugared dough.” It is similar to *pâte brisée* but has a much higher sugar content. The high content of sugar acts as a tenderizer, so the dough is fragile and more difficult to handle than *pâte brisée*.

It is used primarily for small items such as tartlets and petits fours. *Pâte sucrée* can be mixed either by the *sablage* method or the creaming method.

The creaming method, in which the fat and sugar are mixed first, is also used for cookies, cakes, and muffins. |

In fact, both *pâte sucrée* and, especially, *pâte sablée* can be used to make plain cookies.

# Essential Basic Pastries Dough in Pastry Kitchen

## PÂTE SUCRÉE

*For large-quantity measurements, see page 732.*

Ingredients	U.S.	Metric	%	<b>PROCEDURE</b>
Butter, softened	6.5 oz	216 g	54	
Confectioners' sugar	4 oz	132 g	33	
Salt	0.06 oz (1/3 tsp)	2 g	0.5	
Lemon zest, grated	0.06 oz (3/4 tsp)	2 g	0.5	
Vanilla extract	4 drops	4 drops		
Eggs, beaten	3 oz	100 g	25	
Pastry flour	12 oz	400 g	100	
<b>Total weight:</b>	<b>1 lb 9 oz</b>	<b>852 g</b>	<b>213 %</b>	

1. Cream together the butter, confectioners' sugar, salt, lemon zest, and vanilla until the mixture is smooth and pale.
2. Add the eggs a little at a time and beat well between each addition.
3. Add the flour. With a plastic scraper, carefully blend into a soft dough.
4. Wrap in plastic film and flatten out. Chill until firm before use.

# Essential Basic Pastries Dough in Pastry Kitchen

## Short Pastries 3 - Pâte Sablée (Short Bread Pastry)

**Pâte sablée** (*sah BLAY*) contains even more fat than *pâte sucrée* and less egg and other moisturizers. Some formulas also contain more sugar as well.

It is an extremely tender and crumbly dough that is generally used for cookies but can also be used for small tarts and other pastries.

The crumbly, “sandy” texture of the baked dough gives the pastry its name (sable means “sand” in French). Pâte sablée can be mixed using the *sablage* method, but today it is perhaps more common to use the creaming method, as in a typical cookie dough.



# Essential Basic Pastries Dough in Pastry Kitchen

## PÂTE SABLÉE

*For large-quantity measurements, see page 732.*

Ingredients	U.S.	Metric	%
Butter, softened	6 oz	150 g	67
Confectioners' sugar	3 oz	75 g	33
Salt	0.03 oz (1/8 tsp)	0.7 g	0.3
Lemon zest, grated	0.04 oz (1/2 tsp)	1 g	0.5
Vanilla extract	2 drops	2 drops	
Eggs, beaten	1 oz	25 g	11
Pastry flour	9 oz	225 g	100
<b>Total weight:</b>	<b>1 lb 3 oz</b>	<b>475 g</b>	<b>211 %</b>

### PROCEDURE

1. Cream together the butter, confectioners' sugar, lemon zest, and vanilla until the mixture is smooth and pale.
2. Add the eggs a little at a time and beat well between each addition.
3. Add the flour. With a plastic scraper, carefully blend into a soft dough.
4. Wrap in plastic film and flatten out. Chill until firm before use.

### VARIATION

#### CHOCOLATE PÂTE SABLÉE

*For large-quantity measurements, see page 732.*

Ingredients	U.S.	Metric	%
Butter	6 oz	150 g	86
Confectioners' sugar	3 oz	75 g	43
Grated orange zest	0.08 oz (1 tsp)	2 g	0.2
Eggs, beaten	2 oz	50 g	28
Pastry flour	7 oz	175 g	100
Cocoa powder	1 oz	30 g	17

Substitute the above ingredients and follow the basic procedure.  
Sift the flour with the cocoa.



# Fault, causes and troubleshooting



shrinking



Soggy Bottom



Runny Pie



Stuck to the Mold

# Essential Basic Pastries Dough in Pastry Kitchen

## Pâte à Choux



ÉCLAIRS AND CREAM puffs are made from a dough called *éclair* paste, or *choux* paste.

The French name *pâte à choux* (pronounced *pot a SHOO*) means “cabbage paste,” referring to the resemblance of cream puffs to little cabbages.



Unlike puff pastry, *éclair* paste is extremely easy to make. The dough itself can be prepared in just a few minutes. This is fortunate, because for best baking results the dough should not be prepared more than 1 hour ahead of time.

# Essential Basic Pastries Dough in Pastry Kitchen

## Pâte à Choux

Proper baking temperatures are important. Start at a high temperature (425°F/220°C) for the first 15 minutes to develop steam. Then reduce the heat to 375°F (190°C) to finish baking and set the structure.

The products must be firm and dry before being removed from the oven. If they are removed too soon or cooled too quickly, they may collapse.

Some bakers like to leave them in a turned-off oven with the door ajar.

However, if the oven must be heated again for other products, this may not be the best idea. It may be better to bake the products thoroughly, remove them carefully from the oven, and let them cool slowly in a warm place.



Croquembouche

# Essential Basic Pastries Dough in Pastry Kitchen



A



B



C



D

## ÉCLAIR PASTE OR PÂTE À CHOUX

Ingredients	U.S.	Metric	%
Water, milk, or half water, half milk	1 lb 2 oz	560 g	150
Butter or regular shortening	9 oz	280 g	75
Salt	0.18 oz (1 tsp)	5 g	1.5
Bread flour	12 oz	375 g	100
Eggs	1 lb 4 oz	625 g	167
<b>Total weight:</b>	<b>3 lb 11 oz</b>	<b>1845 g</b>	<b>493 %</b>

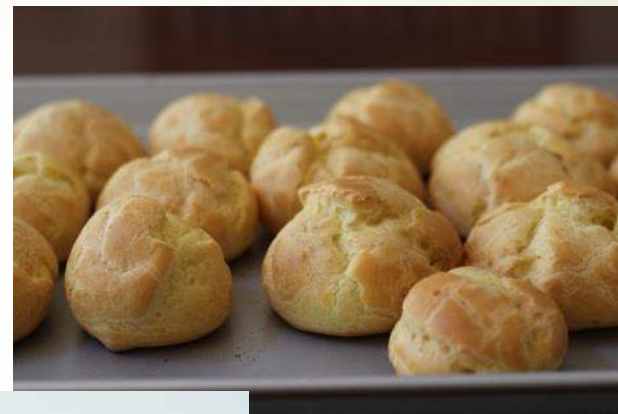
**NOTE:** If a sweeter product is desired, add ½ oz (15 g) sugar in step 1.

### PROCEDURE

1. Combine the liquid, butter, and salt in a heavy saucepan or kettle. Bring the mixture to a full, rolling boil.
2. Add the flour all at once. Stir quickly.
3. Over moderate heat, stir vigorously until the dough forms a ball and pulls away from the sides of the pan.
4. Transfer the dough to the bowl of a mixer. Or, if you wish to mix it by hand, you can leave it in the saucepan.
5. With the paddle attachment, mix at low speed until the dough has cooled slightly. It should be 110°–140°F (43°–60°C), which is still very warm but not too hot to touch.
6. At medium speed, beat in the eggs a little at a time. Add no more than one-quarter of the eggs at once, and wait until they are completely absorbed before adding more. Do not add all the eggs before checking the texture. The paste should be smooth and moist but firm enough to hold its shape. If the paste reaches this texture before all the eggs are added, stop adding eggs. The paste is now ready for use.

# Essential Basic Pastries Dough in Pastry Kitchen

## Pâte à Choux



# Fault, causes and troubleshooting



## PERFECTLY HOLLOW

Salting the eggs before incorporating them into the dough makes a strong puff that inflates well.



## POORLY INFLATED

Mixing salt directly into the dough makes for a weaker puff that doesn't inflate well.



Dense



Runny

Collapse Cream Puff

# Essential Basic Pastries Dough in Pastry Kitchen

## LAMINATED DOUGH

**LAMINATED OR ROLLED-IN** doughs contain many layers of fat sandwiched between layers of dough.

**Puff Pastry** is a rolled in dough without yeast.

In the classic pastry shop, there are two basic rolled-in **yeast doughs**:

- 1. Croissant dough (also called 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, and, of course, yeast. The rolled-in butter gives the dough its flaky texture.
- 2. Danish dough, brioche-style, is a richer dough containing eggs, although it is not as rich in** eggs as regular brioche. This dough is also called *brioche feuilletée*, or *flaky brioche*.



# Essential Basic Pastries Dough in Pastry Kitchen

## ORDINARY PUFF PASTRY

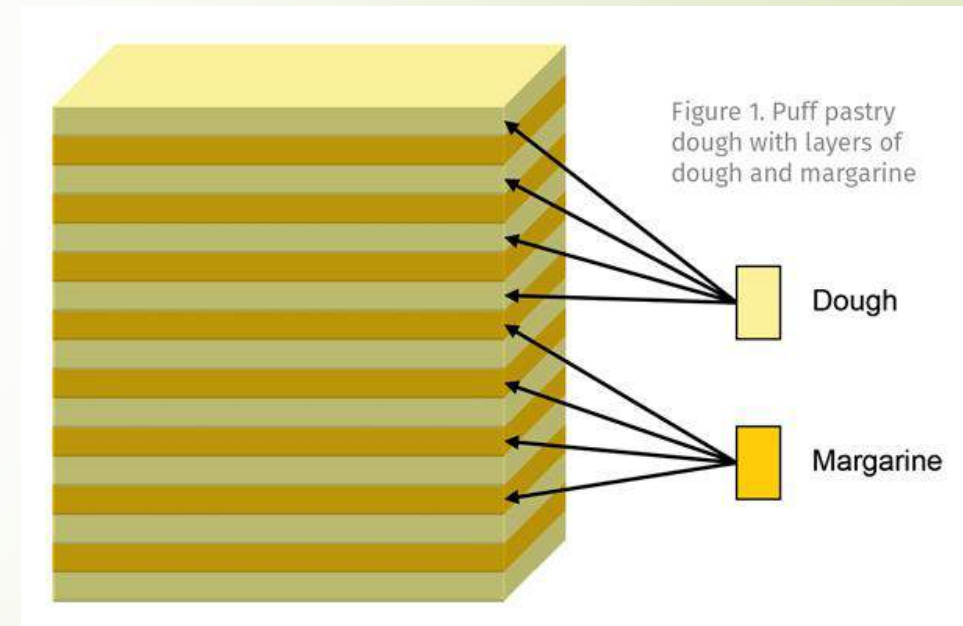
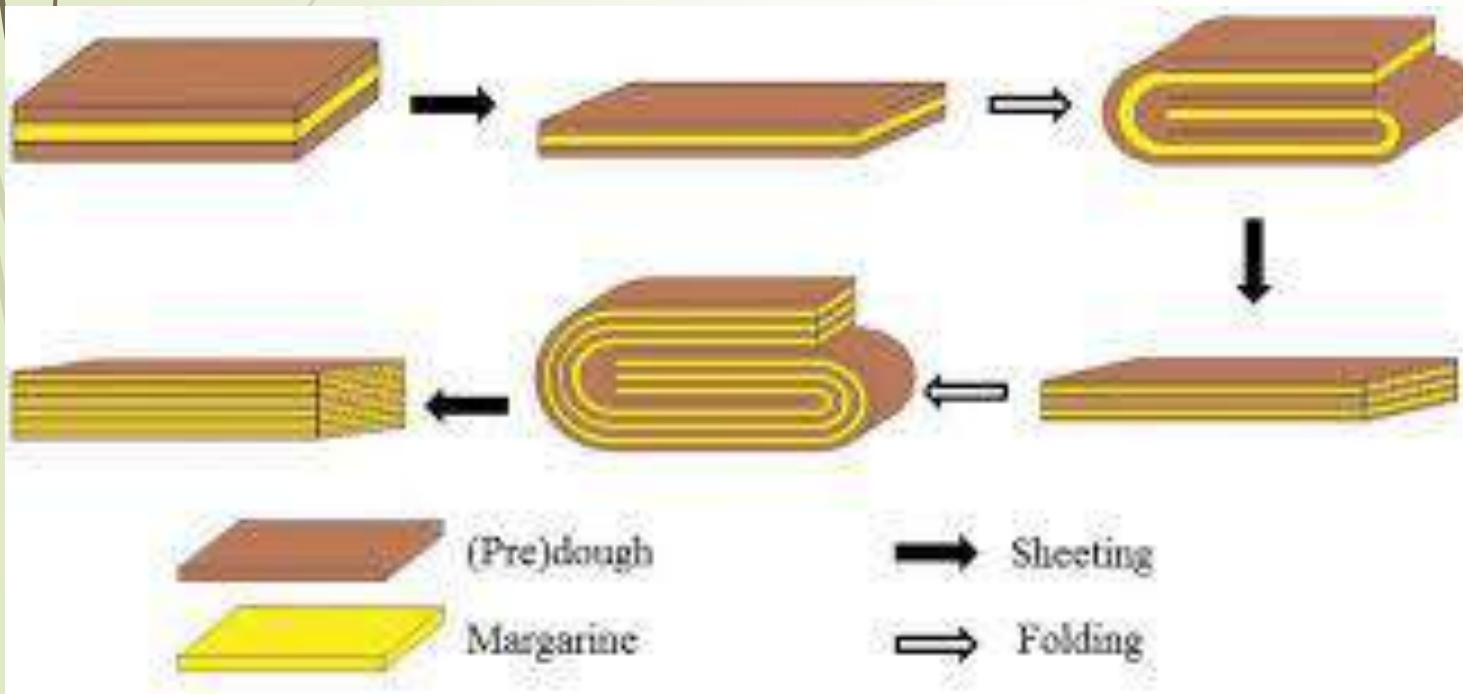
*For large-quantity measurements, see page 733.*

Ingredients	U.S.	Metric	%	<b>PROCEDURE</b>
Bread flour	12 oz	375 g	75	
Cake flour	4 oz	125 g	25	
Butter, softened	2 oz	60 g	12.5	
Salt	0.25 oz	8 g	1.5	
Water, cold	9 oz	282 g	56	
Butter	1 lb	500 g	100	
Bread flour (see <i>Note</i> )	2 oz	60 g	12.5	
<b>Total weight:</b>	<b>2 lb 13 oz</b>	<b>1410 g</b>	<b>282 %</b>	
<p><b>NOTE:</b> The purpose of the second quantity of bread flour is to absorb some of the moisture of the butter and help make the dough more manageable. Omit this flour if shop temperature is cool or if puff paste shortening is used instead of butter.</p>				
<b>VARIATION</b>				
<p>The butter for rolling in may be reduced to 75% or even to as little as 50%. If the butter is reduced, you should also reduce the last quantity of flour (for mixing with the butter) in the same proportion, so it is one-eighth the weight of the butter.</p>				



# Essential Basic Pastries Dough in Pastry Kitchen

## LAMINATED DOUGH

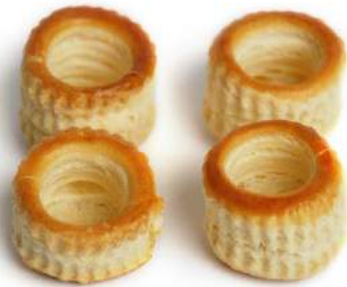


# Essential Basic Pastries Dough in Pastry Kitchen

## LAMINATED DOUGH



*Pin Wheel*



*Vol -au-vent*



*Apple pie*



*Croissant*



*Turnover*



*Cream Horn*



*Mini Quiche*



*Apple Tartlet*

# Fault, causes and troubleshooting

## PUFF PASTRY FAULTS AND THEIR CAUSES

FAULTS	POSSIBLE CAUSES
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 Oven too hot or too cold
Uneven lift or irregular shapes	Improper rolling-in procedure Uneven distribution of fat before rolling Dough not relaxed before baking Uneven heat in oven
Fat running out during baking ( <i>Note: Some fat running out is normal, but it should not be excessive.</i> )	Too much fat used Not enough turns given Oven too cool

# Essential Basic Pastries Dough in Pastry Kitchen

## STRUDEL AND PHYLLO



Pastries made from *strudel dough* or *phyllo doughs* are even flakier than puff pastries.

Unlike puff pastries, these desserts start out with paper-thin layers of dough that are brushed with fat and then stacked or rolled up to make many-layered creations.

*Strudel* is an Eastern European pastry that begins as a soft dough made of strong flour, eggs, and water. After the dough is mixed well to develop the gluten, it is stretched by hand into a very thin, transparent sheet. This is a skilled operation that takes practice to do well.



*Phyllo dough* (pronounced FEE-lo and sometimes spelled “filo” or “fillo”) is a Greek version of this type of paper-thin dough.

Although not exactly the same as strudel dough, it is interchangeable with strudel dough for most of our purposes. Because it is available commercially, phyllo dough is widely used today for strudel-making. In fact, commercial phyllo is often labelled “phyllo/strudel dough.

# Essential Basic Pastries Dough in Pastry Kitchen

## STRUDEL DOUGH

**Yield:** enough for 4 sheets, each about 3 × 4 ft (1 × 1.2 m)

Ingredients	U.S.	Metric	%
Bread flour	2 lb	900 g	100
Water	1 lb 2 oz	500 g	56
Salt	0.5 oz	15 g	1.5
Eggs	5 oz (3 eggs)	140 g (3 eggs)	15
Vegetable oil	2 oz	55 g	6
<b>Total weight:</b>	<b>3 lb 9 oz</b>	<b>1610 g</b>	<b>178 %</b>

### PROCEDURE

#### MIXING

1. Mix all ingredients into a smooth dough. To develop the gluten well, mix at moderate speed for about 10 minutes. The dough will be very soft.
2. Divide the dough into 4 equal parts. Flatten each piece into a rectangle. Place the 4 pieces of dough on an oiled sheet pan. Oil the top of the dough lightly and cover it with plastic film.
3. Let the dough rest at least 1 hour at room temperature, or longer in the retarder.



# Essential Basic Pastries Dough in Pastry Kitchen

## STRUDEL AND PHYLLO



*Baklava*



*Apple Strudel*



*Spanakopita*



*Phyllo Meat Pie*



*Mussel Baklava*



*Milk Pie*



*Borek*

