The Scotch Method
The Original Puff Pastry

Ingredients:

1 part flour (1kg) (all purpose flour can be used. Experiment with different types of flour)

1/3 or ½ to a little over ½ fat that’s been frozen where 1/2kg = 500g etc. (should you use Pastrex Super, then freezing the fat is not required)

~ 550grams fat maximum to 1kg flour ~

1 - 2 Teaspoons salt

2 cups of ice water (getting water content right is critical)

¼ to ½ cup of fresh lemon juice or white vinegar (acts as a natural relaxer and helps stabilize gluten)

1 egg yolk or you can use the whole egg

Method:

• Mix ice water and egg in a bowl first,

• Add flour and all other dry ingredients in a separate bowl,

• Grate the frozen fat into the flour then mix till all the fat is coated with flour forming individual hard bits that are loose,

NOTE: Use your hands to gently mix and coat all fat in the flour generously prior to adding your wet ingredients.

The layering of the pastry is achieved by how one grates the fat. For example, the finer you grate the fat the less layering and heavier your pastry, and the courser you grate the fat the more layering and lighter your pastry will be.

Experiment by varying the grate to achieve the desired puff the way you like it.

NOTE: It’s important that the grated bits of pastry fat remain intact and that the dough is mixed sufficiently to bind the ingredients but is not over mixed, to ensure this happens the pastry fat used must be of a firm consistency.

Do not mix so that the fat melts and merges with the flour. If your fats melt and start to be absorbed by the flour your pastry will be dead, heavy and lifeless and will not puff.

• Now slowly add the mix of ice water, egg and lemon juice or vinegar to the flour and fat. Mixing gently but quickly to form a paste.

   NOTE: Your mixing time must always be as short as possible. Mixing can and should be done in minutes for best results. Over mixing is easy so be careful.

As it is with most pastries, a relaxing or resting time required. We suggest a resting time of 3 hours minimum. For best results let your dough rest overnight (resting period will have a noted effect on pastry). Ideally, after making your dough, place it in a cold room or refrigerator, in a bowl or dish, covered only with a clean dish towel. Do not seal the dough off by wrapping it in plastic or sealing it in a container. Covering it with a cloth allows the pastry to breathe as well as prevents any moisture build-up, where if your pastry is stored, wrapped or sealed, depending on storage and cooling conditions, a moisture build-up can occur when removed from cooling.

This is the perfect puff recipe to use with our. As it’s the easiest, least temperamental, most cost effective in terms of labour, and taste/texture wise if done correctly can be similar to a traditional rolled or sheeted French puff pastry.

Experiment with it and adapt it to suit your pie brand by varying fat types, quantities or adding a little butter and or margarine. Be creative.

One of the biggest factors that will affect the results of your pastry is ALTITUDE to mention but one. Other factors such as, quality and temperature of ingredients are also key factors in achieving a great pastry... See http://www.piedesigns.co.za/pie-baking-articles/high-altitude-baking to know more about the significance and affect that altitude has on your pastry results.

Tip - Using fats like Hudson & Knights Pastrex Super which has been formulated for this type of pastry is ideal, as Pastrex Super is designed to melt at much higher temperatures than most other brands.

Pastrex Super - a 100% vegetable product is ideal for the production of top quality puff pastry goods.
Tip - Personally I make this recipe using Hudson & Knights **Holsum** using the simple method above with amazing results. This is in fact the exact method and recipe, using Holsum, which formed the success of my mother’s legendary pastry and business, ‘The Cuckoos Nest’ in the 80’s.

**Holsum** has been around for generations and is the tried and trusted household friend.

**Background and uses:**

**Health**

- Holsum is made of pure palm oil, which is an excellent source of vitamins A and D, and has no additives or preservatives. Palm oil is suitable for vegetarians, as well as for Kosher and Halaal cooking.
- Holsum contains naturally occurring solid fats and has not been artificially hardened through a process called hydrogenation, and thus contains no Trans Fatty Acids (which have been discovered to be highly toxic to humans).

**Cooking and Baking**

- Holsum is a fantastic shortening agent, as it is 100% fat, with good plasticity, which means that it melts slowly when baked and results in a rich crispy pastry.
- Holsum contains no added moisture; it will not spatter when heated.
- Holsum is also an excellent frying medium and produces the most delicious, crispy roast potatoes, fritters, vetkoek and French fries.
- Holsum has no discernable flavour of its own, but is an excellent flavour carrier, and enhances the flavour of foods cooked with it.
- Holsum can be used to grease baking sheets and pans, simply peel bake the wrapper and rub the brick lightly over the surface of your baking pans.

Holsum is available in 125g bricks from most supermarkets and retails outlets in South Africa. Crisco or suitable brands should be available in your country.

**Why does puff pastry puff?**

The mechanism of how puff pastry can expand eight fold during the baking process is attributed to two factors:

- The strength of the gluten network. This is dependent on the quality of the flour protein which becomes gluten when hydrated.
- The laminated structure of this pastry - the alternate layering of pastry fat and dough.

When the water in the gluten becomes steam during the baking cycle the gluten structure in the dough layers expands and creates lift. The pastry fat layers melt and are absorbed into the dough layers. The resulting structure is then seen as flaky layers.

The success of puff pastry depends to a large degree on the quality and quantity of the pastry fat which will form the laminations in the final paste. Pastry fat acts as an insulator between the two dough layers and prevents them fusing. It is important that the pastry fat does not penetrate the dough layers as this will shorten the pastry and downgrade the quality of the finished product.
Baking times and temperatures

It is essential when preparing puff pastry to adhere to the procedures outlined in the above methods. The resting period and the correct baking procedure will determine the quality of the final product. Resting the paste allows the gluten to relax and prevents shrinkage and distortion in the final product. For the best results puff pastry should be produced a day prior to its final make-up and allowed to rest overnight in a refrigerator.

A hot oven (±200°C - 220°C) is required for unfilled egg glazed puff pastry products, and a cooler oven temperature is required for sugar coated products. The *volume of lightness of the product is greatly affected when the oven temperature is incorrect.*

**Hints**

- Always cover resting paste to prevent skinning.
- To ensure maximum yield always utilise a sharp cutter and if necessary a pastry ruler, ideally our Dough Portioner will provide speed of portioning as well as excellent yield,
- While our Pneumatic Blocking Machine or Manual Blocking Machine will ensure your pastry is the perfect thickness and density,
- Our Lidding Machines will ensure that assembling your pies will be the simplest of tasks. And is key to your final product quality.
- Before making and baking always rest pastry dough for a minimum period of 3 hours – 24hours.
- Egg wash with a little salt gives the baked goods a good colour and shine.
- When egg washing ensure that the egg does not run on the side of the formed product as the egg will coagulate during the baking and prevent a uniform lift.
- Ensure that oven temperatures are correct and stable before baking.

**Fault finding**

The table below is intended to be used as a guide only and cannot cover all the faults in puff pastry manufacture.

<table>
<thead>
<tr>
<th>Faults</th>
<th>Causes</th>
<th>Remedies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of volume (not puffing)</td>
<td>Oven too cool. Poor lamination. Overturning or over mixing Weak flour.</td>
<td>Increase temperature. Grate fat rougher Reduce mixing duration Stronger flour.</td>
</tr>
<tr>
<td>Shrinkage</td>
<td>Dough too tight. Insufficient rest prior to baking.</td>
<td>Adjust water content. Ensure correct rest periods. Add more lemon juice or white vinegar.</td>
</tr>
<tr>
<td>Fat seeping during baking.</td>
<td>Oven too cool. Fat layers too thick.</td>
<td>Increase temperature. Ensure an even fat distribution,</td>
</tr>
<tr>
<td>Tough lifeless pastries.</td>
<td>Oven too cool. Pastries too thick.</td>
<td>Increase temperature. Roll out or form thinner. (2 – 4mm thick)</td>
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</tbody>
</table>

_This is a family recipe and method we are passing on to you, and is by no means specific to the use of our machines. Our pie making and pastry machines work equally well with all types of pastry._

Sincerely,
Kevin Robb
Pie Designs & Solutions