POTATO CRISPS
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1.- Potato crisp: general information

Potato crisps are a snack food that are made from deep fried potato slices. They may be flavoured with salt or synthetic flavourings and packaged in polypropylene bags.

The main preservative action is heat during frying and the low moisture content of the product.

Other root vegetables and starchy fruits such as sweet potato, cassava, plantain and breadfruit can also be used to make crisps.

The best potatoes to use for crisps are those with a high sugar content as they produce a golden colour when fried.

2.- Processing details for potato crisps production

2.1.-Washing

Use raw materials (potatoes) that are suitable for crisp making. Varieties with a high sugar content are the best to use as they produce a golden colour when fried.

Wash the potatoes thoroughly to remove all traces of dirt and soil.
2.2.-Peeling

Potatoes can be peeled by hand using a sharp knife or manual peeler. Abrasive potato peelers are available. Lye peeling is also an option for larger scale operations. After peeling, the potatoes should be submerged in clean water until ready to use to prevent them blackening.

2.3.-Slicing

Slice the potatoes as thinly as possible, either using a sharp knife or a slicing machine. The slices should be of a uniform thickness to ensure that they all cook at the same rate.

2.4.-Frying

Dry the slices before adding to the hot oil. Heat the oil to 180-200°C. A large pan can be used, but there is greater control over the temperature if a thermostatically controlled fat fryer is used. Do not put in too many crisps at one time as this lowers the temperature of the oil and the crisps may stick together. Fry the crisps until they are golden brown. The oil affects the taste, texture and keeping quality of the final product. Any rancidity of the oil results in strong flavours and odours that are transferred to the fried food and spoils the taste and flavour of the product. Fresh oil produces a higher quality product. Oils should not be used for frying more than a few times. The temperature of the oil should not reach the smoke point as this increases the rate at which it deteriorates. Suitable temperatures for frying are 180-200°C.

2.5.-Draining

Remove the crisps from the hot oil. Drain on absorbent paper or use a centrifugal spinner to remove excess oil.

Poorly drained products are unattractive as the oil leaves a greasy film on the packaging material and accelerates rancidity and deterioration of the product.

Fans and absorbent paper can be used to remove excess oil.

Higher temperatures during frying cause less oil to be retained on the product. New oil sticks to the product less than old oil.

Add flavourings (salt, pepper, chilli powder etc) if desired.

2.6.-Packaging

Fried crisps are very hygroscopic, that is they rapidly absorb moisture from the surrounding air.

They should be packaged as soon as they are cool.
Do not seal in packages before they are cool as condensation will form inside the packet and make the contents soft.

Packaging should be airtight and moisture proof.

When packed and stored correctly (in a cool place, out of direct sunlight and away from strong aromas), potato crisps have a storage life of about 6 months.