

# Minimising the presence of acrylamide in food: proposal for a Code of practice of the European craft, micro and small food enterprises

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## Introduction:

Acrylamide is a chemical that naturally forms in starchy food products during every-day high-temperature cooking (frying, baking, roasting and also industrial processing, at +120°C and low moisture). It appears during the 'browning' of the food. In light of the conclusions of the European Food Safety Authority on the carcinogenic effect of acrylamide, and in order to help independent food business operators minimising the presence of acrylamide in the food they serve to consumers, UEAPME<sup>1</sup> makes the following recommendations.

## 1. Measures to avoid or minimise the formation of acrylamide in potato products such as French fries and other cut (deep fried) potato products

To avoid as much as possible the formation of acrylamide, food business operators should consider the following:

- Interactions with the supplier, choice of varieties and storage of potatoes
  - When reasonably possible, consider using potato varieties with lower sugar content;<sup>2</sup>
  - Do not store your potatoes at a temperature lower than 6°C;
  - For any preparations use younger potatoes;
- When frying potato products and French fries:
  - Consider using a cooking oil (e.g. Sunflower Oil) which allows to fry quicker and/or at lower temperatures;<sup>3</sup>
  - Use lower temperatures, with a maximum frying temperature of 175°C;
  - Maintain good frying oil quality: skim frequently to remove fines and crumbs;
- Cook French fries until you obtain a golden yellow colour (instead of golden brown):
  - Avoid frying until colour gets brown/dark;
  - Have available in the kitchen for reference the frying colour guide;
- The blanching of potatoes is said to remove 50% of the relevant sugars;

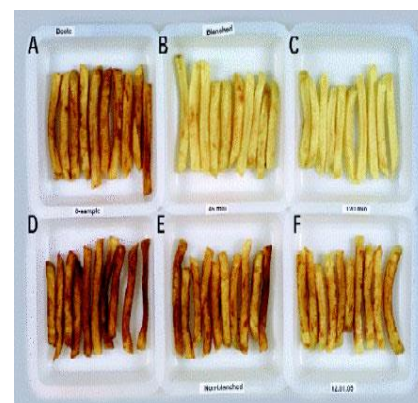


Figure 1: Frying colour guide – yellow golden colour (B or C) recommended option with French fries.

<sup>2</sup> Where to find information on potato varieties [www.euppa.eu](http://www.euppa.eu)

<sup>3</sup> Where to find information on the frying process [www.goodfries.eu](http://www.goodfries.eu)

- If using frozen potato products: follow recommended cooking instructions.

## 2. Measures to avoid or minimise the formation of acrylamide in bakery products

To avoid as much as possible the formation of acrylamide, bakeries preparing bread and other fine bakery products should consider the following:

- When baking bread:
  - Bake it to a lighter colour endpoint; limiting browning of crust;
  - When reasonably possible, consider using lower oven temperature with longer cooking time;
- Do not over-toast bread and bakery products: avoid dark brown colours.

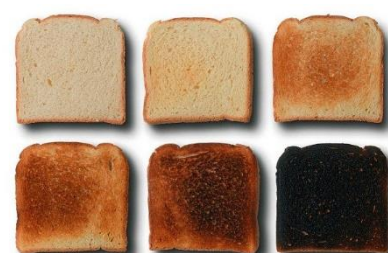


Figure 2 : Toasting colour guide – when toasting white bread – light colours recommended option for this kind of bread.

<sup>1</sup> UEAPME is the employers' organisation representing the interests of European crafts, trades and SMEs at EU level. UEAPME is a recognised European Social Partner. It is a non-profit seeking and non-partisan organisation. As the European SME umbrella organisation, UEAPME incorporates around 64 member organisations from 34 countries consisting of national cross-sectorial SME federations, European branch federations and other associate members, which support the SME family. UEAPME represents about 12 million enterprises, which employ around 55 million people across

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