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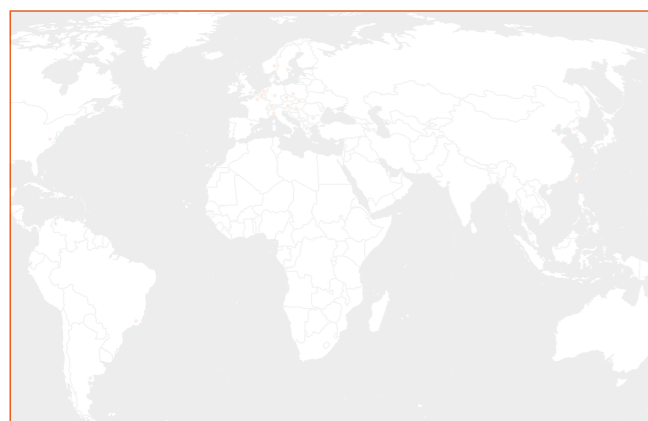
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**aperam**  
made for life

**PHYTHERM®**, when it comes to induction

# PHYTHERM, a healthy way of cooking

The **evenly controlled cooking** made possible by PHYTHERM's remarkable properties allows both the **nutritional qualities** of food and its **flavours** to be preserved. **Pleasure** and **health** can therefore be combined.

## Durability

By limiting temperature peaks, PHYTHERM prevents deterioration of the non-stick coating. Cooking utensils are protected over the long-term.

## Well-being

Limiting the temperature prevents fats from overheating. Uniform heat distribution enables consistent, perfectly controlled cooking.

## Economical

PHYTHERM's magnetic properties noticeably reduce the amount of electricity used by the cooking process.



innovation

# PHYTHERM, how does it work?

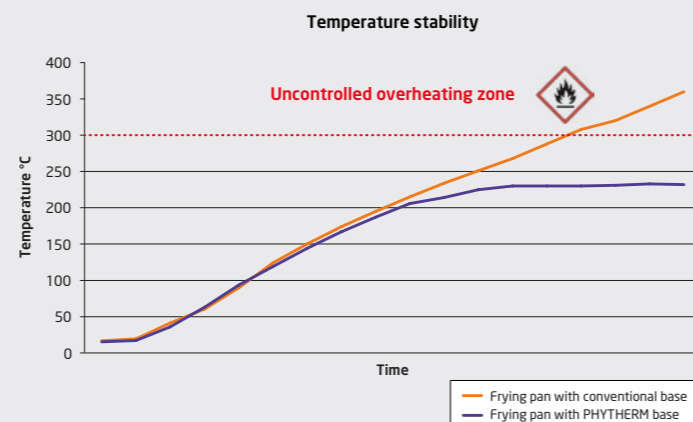
The amount of heat produced when cooking food by induction is related to the magnetic permeability of the utensil base. This permeability is expressed in terms of:

$$\mu(T) \approx \mu_0 + \mu_0 \kappa \left[ 1 - \left( \frac{T}{T_c} \right)^n \right]$$

It is thanks to this formula that the principle of self-regulation was born.

In basic terms, as a specific temperature known as the Curie point ( $T_c$ ) approaches, the magnetic base stops getting hotter (practically zero permeability). The PHYTHERM alloy, with its Curie point set at the ideal level, allows for this kind of temperature control.

Furthermore, its patented chemical composition makes it possible to limit the mechanical constraints imposed by the expansion of the other materials used in the utensil.



# PHYTHERM, technology at the service of taste

Kitchen utensil manufacturers use PHYTHERM by applying a layer of the nickel alloy in question to the underneath of a pan or frying pan to stabilise the heat and offer unparalleled cooking performance.

PHYTHERM was developed in France by engineering teams at Aperam Alloys' Research Centre in Imphy. It is thanks to the teams' recognised expertise in nickel-based metals that the grade in question was developed to meet the demands of contemporary induction cooking.

# PHYTHERM, for all types of cooking

## Steaming PHYTHERM 120

Considered the healthiest cooking method. Steaming does not cause food to become dry, and the food is cooked evenly at a temperature of around 100°C.

## Frying PHYTHERM 210

For truly golden and crispy results, use an oil that can withstand temperatures of 160°C to 200°C.

## Braising PHYTHERM 230

A cooking method that allows all the food's flavours to be retained. Cut the food into pieces, brown, then simmer at length.

## Sauté PHYTHERM 260

A cooking method that enables meats and vegetables to be perfectly seared. When sautéed using a high temperature source, foods retain their colours, their flavours and their nutritional qualities.