

## PÍNEA – ECO-FRIENDLY FIRELIGHTER



### TECHNOLOGY SUMMARY

Eco-friendly firelighters, exclusively composed by natural and recycled materials, based on forest waste and bee wax. The firelighter resulting from this mixture is, itself, involved in a vegetal fiber-based paper, which can be detachable and individually used. The product aims the promotion of a better environmental sustainability and a closer relationship with the forest.

#### BENEFITS

**ECO-FRIENDLY:** these firelighters use natural and recycled products.

**WITHOUT PARAFFIN**

**EQUAL EFFICIENCY** compared to chemical firelighters.

**WITHOUT UNPLEASANT ODORS**

**WITHOUT DARK SMOKE.**

**REDUCED VOLUME**

**NO RESIDUES:** the package is part of the product itself.

### CONTEXT

Currently, fire-ignition facilitator products are divided in two types: industrially produced and natural. Industrial products consist in traditional firelighters made with chemicals and toxic products like petroleum, or ecologic materials like wood mixed with paraffin. Natural products are collected directly from the environment, like dry pine cones and needles. However, gives its structure, those products take up much more space than traditional firelighters.

The proposed eco-friendly firelighters are made exclusively with natural and recycled materials, without chemicals or petroleum derivatives, allowing a burning without unpleasant odors and dark smoke. It is a practical and beneficial product, presenting an ecological, urban and visually attractive solution for traditional use of firelighters. Allied with similar efficiency compared to chemical firelighters, these ones don't generate residues, once its package is part of the product itself.

### APPLICATIONS

The product is used for facilitate fire ignition in:

**FOOD PREPARATION** (for domestic use or catering)

**FIREPLACES AND STOVES**

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## IP RIGHTS

National patent pending.

National trademark granted.

National design granted.

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## DEVELOPMENT STAGE

TRL 4: laboratorial prototype demonstrated.

Available for presentation.

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## KEYWORDS

FIRELIGHTER

PINE CONE

FOREST WASTE

BEESWAX

ECOLOGY

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## CONTACT

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## DEVELOPED BY

Teachers and students from Communication and Art Department (DeCA) of the University of Aveiro.

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## BUSINESS OPPORTUNITY

Licensing agreement for the patent application, trademark and/or design.

Product co-development.

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## PARTNERSHIP

The University of Aveiro seeks partners within the industries of pinewood products, firelighters, honey and paper.