

## Thermoplastic Heating Panel

### DESCRIPTION OF THE INVENTION

The present invention refers to heated panels produced by conventional processes of transformation of plastics and based on conductive thermoplastic compounds. The panel is heated thanks to the Joule effect by which an electrically conductive material is heated when an electric current is applied. These panels can be used as an efficient heating system in different sectors such as automotive, construction, aerospace and packaging. The panels can be obtained by extrusion, injection or compression molding and subsequently shaped to adapt to different geometries.

The polymeric panels are capable of heating due to the incorporation of conductive nanoparticles, which give the polymer a high electrical conductivity. By achieving a conductive behavior in the polymer, it will be heated by applying an electric current. Currently these heating systems are based on metallic resistors, ceramics or printed resistors of conductive inks. The system patented by AIMPLAS has the advantage of processing traditional plastic processing processes, it is totally recyclable and its behavior is totally adaptable to different application requirements. A PTC (positive temperature coefficient) or NTC (negative temperature coefficient) behavior can be obtained depending on the formulation applied. The heated panels reduce energy consumption, this being its main competitive advantage in applications such as electric mobility and energy efficient buildings, among others.

### APPLICATION BUSINESS SECTORS

Automotive, construction, aerospace and packaging

### TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

Advantages: recyclable, homogeneous heating on the entire surface, energy consumption, ability to modify the electrical properties to have an NTC or PTC behavior, price, adaptable geometry

### STATUS DEVELOPED OF THE TECHNOLOGY

TRL 8

### INTELLECTUAL PROPERTY RIGHTS

Propiedad de AIMPLAS y licenciado a DURPLASTICS

### COLLABORATION SOUGHT

Companies interested in the following systems of cooperation:

- Agreement about patent license to implementation and to use of technology.
- Agreement about Research & Development projects (technical cooperation) to apply technology in different sectors.

### Thermoplastic Heating Panel

#### RELATED IMAGES



#### CONTACT DETAIL

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