TECHNOLOGY OFFER

Method for mechanically bonding a first sheet made of metal and a second sheet made of a composite material compromising fibers and installation for carrying out the method

Nowadays, the conventional way of bonding metal materials with composites involves either perforating the composite material which can cause potential damage and reduce the resistance of the manufactured parts, or incorporating fastening elements that add extra weight to the structure. Although there have been alternative technologies proposed, they have not been implemented in the industry due to their increased complexity, cost, and cycle times. To address this issue, we propose a simple technology that allows for the mechanical bonding of metal and composite materials, with reduced costs and cycle times. This technology also minimizes the damage to the composite material and does not increase the final weight of the piece. It is an easy implementation in the automotive industry.

COMPETITIVE ADVANTAGE

- Easy to perform
- Low cost and cycle times
- No added weight
- Minimize the damage to the composite
- Applicable to flat surfaces
- Easy to implement into the automotive industry

OBJECTIVE MARKET

- Automotive sector

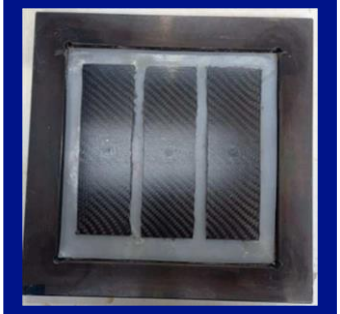
POTENTIAL APPLICATIONS

- Automotive industry production lines

ROADMAP / TIME-TO-MARKET

- Patent filing EP22383176.9 (2022)
- PCT/EP2023/084164 (2023)

Universitat de Girona



RESEARCH GROUPS

Unit of Polymeric and Composite Processes EURECAT

Group of Analysis and Advanced Materials for Structural Design (AMADE) University of Girona

TRL – 3
In Development

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