

TECHNOLOGICAL OFFER



Method to tailor the residual stress state in fiber reinforced stress-relaxable polymers

Fiber-reinforced composite laminates often suffer from cracks in the matrix, affecting mechanical strength and durability, which are especially critical in aeronautical, automotive and gas and liquid storage applications. The proposed solution uses a new type of resins, vitrimeric resins, to generate pre-compressive stresses in the material and improve the shear strength and durability of the materials, without increasing the weight and/or the section size.

COMPETITIVE ADVANTAGE

- Greater durability and lightness of the materials.
- Reduction of residual stresses generated during curing process.
- Possibly to be applied in the different directions.

OBJECTIVE MARKET

- Aeronautic and automotive industries.
- Manufacturers of composite materials.
- Gas and liquid storage industries.

POTENTIAL APPLICATIONS

- Composite materials for high-performance lightweight structures.

ROADMAP / TIME-TO-MARKET

- Ramón y Cajal grants
- Grants for Knowledge Generation Projects 2022
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RESEARCH GROUP

Analysis and
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for Structural Design
(AMADE)

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