

Veille NAE 11 mai 2018

Une cellule de soudage par induction à ...

25/04/2018 - jecomposites.com

Réunissant un consortium de 10 partenaires, le projet SIDEFFECT vise à développer et évaluer le soudage dynamique par induction destiné au fuselage thermoplastique dans un contexte de faible coût et de forte cadence.

Dans le cadre de l'évolution constante du marché aéronautique, la filière doit répondre aux objectifs de forte cadence et de maîtrise des coûts. Les composites thermoplastiques présentent de réels atouts : performances mécaniques, excellente tenue environnementale (feu, fluides, température), et des perspectives industrielles d'automatisation notamment par l'introduction du soudage.

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Development of air-jet textured and twisted carbon fibre-polyamide 6, 6 hybrid yarn for the production of thermoplastic composite materials

24/04/2018 - kirj.ee

Recently, fibre-reinforced thermoplastic composite materials have been used widely in the automotive and aerospace industries because of their fracture toughness and recycling. Despite such superior properties, these materials have a weak side:

high melt viscosity and low thermal resistance. The high melt viscosity of such materials makes the homogeneous wetting process difficult. This property leads to problems with the machinery and equipment at the mass production lines, and thus costs increase.

Reinforcing the fibre and matrix mixed in the solid state and consolidating them helps to solve his problem. This creates a new type of semi-finished material for thermoplastic composites – hybrid yarn. The main aim of the current study was to solve the problem with high melt viscosity of thermoplastic composite materials by mixing the reinforcing fibre and matrix in the

intermingling and twisting process and consolidating them. Fabricated hybrid yarns can be processed by using different textile surface forming techniques (weaving, knitting, etc.).

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Thermoplastic Composite Solutions for Mass Markets: Opportunities and Challenges

08/04/2018 - meetings.aps.org

il y a 8 jours - ... going beyond the lab, pilot plant all the way to the industrial-scale in terms of robust

process upscaling, industrial scale thermoplastic composite recycling and last but not least, a healthy knowledge base of resources experienced with continuous fiber thermoplastic ...

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