

Veille NAE 8 mars 2018

Thermoplastic composite beam structures from mixtures of recycled HDPE and rubber crumb for acoustic energy absorption

08/03/2018 - journals.sagepub.com

The use of recycled rubber crumb in the design and production of thermoplastic-rubber composites as sound absorbers can provide solutions to noise pollution and...

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Experimental assessment of the influence of welding process parameters on Lamb wave transmission across ultrasonically welded thermoplastic composite joints

08/03/2018 - sciencedirect.com

? Abstract. One of the advantages of thermoplastic composites relative to their thermoset counterparts is the possibility of assembling components through welding. Ultrasonic welding in particular is very promising for industrialization ?

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POLYMERIC SUBSTRATES WITH AN IMPROVED THERMAL EXPANSION COEFFICIENT AND A METHOD FOR PRODUCING THE SAME

15/02/2018 - worldwide.espacenet.com

A substrate and method for providing a thermoplastic composite having a fiberglass mat embedded within a thermoplastic polymer. The characteristics of the fiberglass mat combined with a thermal compression bonding method allow for a substantially improved and desirable thermal expansion coefficient over conventionally filled thermoplastic substrates or other fiberglass reinforced thermoplastics.

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THERMOPLASTIC COMPOSITES AND METHODS OF MAKING FOR ELECTRICAL EQUIPMENT INSULATION AND/OR ENCAPSULATION

08/02/2018 - worldwide.espacenet.com

The disclosed concept pertains to thermoplastic composites, e.g., nano-filler-polymer systems, for use in insulating and/or encapsulating an electrical component to provide electrical insulation, and a protective barrier from environmental conditions. The thermoplastic composites include a polymer, e.g., polymer matrix, micro-size and/or nano-size filler(s) and additive(s). The filler(s) is specifically selected with the intent of imparting improved dielectric properties to the thermoplastic composite, as compared to the polymer absent of the filler. The additive(s) impart environmental resistive properties to the thermoplastic composite.

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Monte Carlo modelling of percolation and conductivity in carbon filled polymer nanocomposites

11/01/2018 - ieeexplore.ieee.org

Conducting polymer composites are attractive alternatives for applications such as electromagnetic shielding in which metals are conventionally used. They have unique advantages like light weight,

ease of processing and good strength to weight ratio. This makes them economically viable especially in industries like avionics where weight is an important criterion. However, a major challenge in using conducting polymer composites in many of the applications is its limited conductivity. Even though

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