AFFILIATO: ARMO

Market Monitoring Newsletter

ARMO'S ROTATIONAL MOLDING NEWSLETTER jeudi 22 octobre 2020

Research & Patents

Rotational molding of biocomposites with addition of buckwheat husk fille Structure-property correlation assessment for materials based o polyethylene (PE) and poly(lactic acid) PLA

The main subject of the project is to obtain a natural filler polymer composite through the rotational molding process (rotomolding). For the purpose of comparison, two varieties of a matrix polymer were used: linear low-density polyethylene (PE) as a standard material used in this technology and poly(lactid acid) biopolymer (PLA). Ground buckwheat husk (BH) was used as a natural filler. Due to the key aspect of the size and morphology of the processed materials, three different BH particle sizes were used during the study: <50 μm, 50–200 μm and 200–500 μm.

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Model predictive control of uni-axial rotational molding process

This paper addresses the problem of achieving tight product consistency and enabling automated process changes to deliver user-selected criterion based product in a complex industrial batch process such as uni-axial rotational molding. To this end, a data driven state-space model is first identified. For a given trajectory of input moves (heater and compressed air profiles), this dynamic model is able to predict the evolution of the measured variable (internal product temperature).

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An analytical model to predict the creep behaviour of linear low-densit

polyethylene (LLDPE) and polypropylene (PP) used in rotational moulding

otational Moulding (RM) is a versatile plastic processing method for the production of hollow products. Since the life expectancy of RM products are over several decades, prediction of mechanical properties like creep will be useful during the design phase of a product. In this research, an analytical model based on time hardening model was developed to predict and compare the creep behaviour of linear low-density polyethylene (LLDPE) and PP at 40°C. The model uses some constants obtained from the experimental findings of a typical accelerated creep test using stepped isothermal method- time-temperature superposition (SIM-TTS). Based on the creep performance, the comparison of the two materials (LLDPE and PP) has been carried out and inferences have been made about their long term performance under constant stress.

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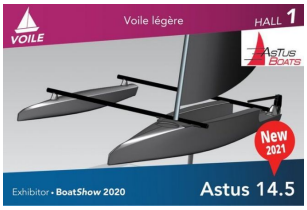
Rotomolding Market News - Europe

Astus 14.5, un prao fun, performant et simple pour larguer les amarres sar contrainte



Réussir à proposer un voilier de caractère à moins de 5000 €. Tel a été le challenge de la conception de l'Astus 14.5. Revenir à des plaisirs simples de la navigation. Astus Boat a imaginé un usage qui se rapproche d'un kayak. Être prêt à embarquer rapidement sans contraintes. Il se charge facilement sur la galerie de la voiture par une personne seule. La coque centrale pèse à peine 20 kg. Moins lourde qu'un kayak en rotomoulé !

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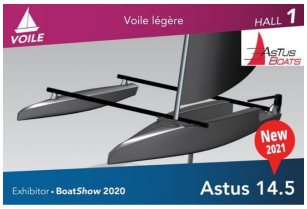
Astus 14.5, a fun, easy and efficient prao to raise anchor and cast o anywhere, anytime



Offering a quality sailing boat for less than 5000 €. Such was the challenge that was taken up during the conception of the Astus 14.5 boat. It had to get back to the easy pleasures of sailing. Astus Boat imagined a way of sailing that is close to using a kayak. Being ready to raise anchor and cast off at any time, without any constraints. The boat can easily be charged up on a car's roof by only one person. Its central hull only weights 20 kilos, and is thus lighter than a rotomolded kayak. (Translated from French)

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Rotomolding Market News - North America

Toilets for Big Toys: We just shipped this rotational mold for making RV toilet

Toilets for Big Toys: We just shipped this rotational mold for making RV toilets. Tooling included multiple over-molded brass inserts & threaded insert, both can be tough to do with rotational molding. We're up to the challenge.

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