



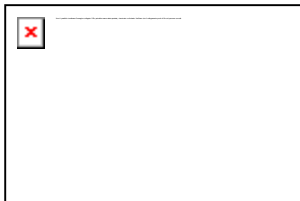
## Market Monitoring Newsletter

ARMO'S ROTATIONAL MOLDING NEWSLETTER

jeudi 1 décembre 2022

### Research & Patents

#### **Effect of mould speed on selected properties of moulded parts and energy consumption in rotational moulding**



This paper deals with rotational moulding. The relationship between mould speed and wall thickness in the upper, middle and lower areas of rotational moulded parts is investigated. Young's modulus of moulded parts is determined via static tensile testing. A static compression test is performed to determine the maximum compressive force causing strain. The test is conducted on the wall of moulded parts, parallel to the main axis of rotation.

Click here to read more : [journals.pan.pl](http://journals.pan.pl)

#### **Investigating the influence of plasma treated polyethylene powder, carbon fibers in enhancing the mechanical properties of polymer composites using rotomoulding method**

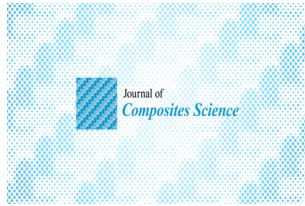


In this research, rotomoulded samples of polyethylene (PE) were mechanically tested to find better applications. The mold was kept in an oven at 260°C with forced convection. Total fabrication time depended on peak internal air temperature (PIAT) used with 200, 220 and 240°C to confirm the fabrication conditions. The plasma treatment of PE and recycled carbon fiber (CF) was used for the improvement of

properties. Maximum tensile strength (TS) of 23.1 MPa was observed in 10 wt% CF/PE composites.

Click here to read more : [onlinelibrary.wiley.com](https://onlinelibrary.wiley.com)

### **Hybrid Polyethylene Composites with Recycled Carbon Fibres and Hemp Fibres Produced by Rotational Moulding**



This study assessed polyethylene composites produced by rotational moulding with hybrid reinforcement using recycled carbon fibre (RCF) and hemp fibre (HF). First, the RCF was treated with nitric acid to introduce hydroxyl groups on the fibres' surface and was characterised by infrared spectroscopy and microscopy analyses. Although the fibre surface treatment improved the tensile properties of the composites, the use of grafted maleic anhydride polyethylene (MAPE) as a coupling agent was more effective in improving the interfacial bonding between the fibres and the matrix.

Click here to read more : [www.mdpi.com](https://www.mdpi.com)

## **Rotomolding Market News - Europe**

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### **A rotomoulded floor lamp that is entirely recycled and recyclable**

09/11/2022



Loomie is a floor lamp made from recycled and recyclable plastic, which is the result of a joint project between Hera Luce and Aliplast. Loomie is a lamp produced using technology developed by Niteko for the Lorelux brand. Plastic from the selective waste collection by citizens is collected by Gruppo Hera and AcegasApsAmga, who have been working for years to maximise the fraction of plastic that can be sent for recycling. (News in Italian)

Click here to read more : [www.qualenergia.it](https://www.qualenergia.it)

### **Rototech (Quadrivio Group) acquires Brazilian company Tecnotri**

14/11/2022



The Quadrivio Group is acquiring, through Rototech, a majority stake in Tecnotri Indústria de Plásticos Ltda, a Brazilian rotational moulding company that manufactures plastic containers for industrial applications such as handling and agricultural storage. In 2021, Tecnotri generated €5 million in revenues, with an Ebitda margin of €1.5 million (30% Ebitda margin), demonstrating good profitability and a strong capacity for growth and development. (News in Italian)

Click here to read more : [www.plastmagazine.it](https://www.plastmagazine.it)

## **Rotomolding Market News - North America**

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**Chem-Trend Acquires Surface Enhancer and Resin Tack from Mold In Graphic Systems® to be the “Go-To” Partner for Rotational Molding**



Chem-Trend is pleased to announce the acquisition of three product lines from Mold In Graphic Systems® (MIGS®) with immediate effect: Surface Enhancer 360°, Surface Enhancer 360° Prevent and Resin Tack Mold-In Adhesive. Now, the authentic Surface Enhancer 360° and Resin Tack products developed for rotational molding applications are now available and sold within Chem-Trend’s global network, with Surface Enhancer 360° Prevent available only in Europe.

**Click here to read more :** [chemtrend.com](http://chemtrend.com)

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