



Market Monitoring Newsletter

THE ESSENTIAL NEWS OF ROTOMOULDING WORLDWIDE

First woman at the Rotational Molding Hall of Fame.

Conchita Miranda Patiño has been the director of Miraplastek, a family company that has established itself as a world reference in rotational molding, for 26 years.



Holland, Cummins, among others.

The Association of Rotational Molders granted her induction into the Rotational Molding Hall of Fame, being the first woman to receive such recognition individually. In this podcast Pilotos, Conchita Miranda shares with listeners the keys to open-door leadership. Conchita Miranda is an example of successful business succession. Founded by his father, Miraplastek started as a supplier to the food and pharmaceutical sector with only 15 products. Today, it is a leader in Latin America with thousands of products in its portfolio, exporting to more than a hundred countries and working for clients such as Caterpillar, John Deere, Case New

https://www.liderempresarial.com/conchita-miranda-pilotos/

The French Association of Rotomolding (AFR) anticipates its future action programme.

On 26 March, the AFR Development Committee met with 17 industrialists at the remarkable ENSAM premises in Paris.



The discussions provided an opportunity to take stock of the situation regarding post-consumer recycled plastics for use in rotational moulding, to consider the themes that will be on the agenda for the next Master Class (18 and 19 September

2024 - Lyon) and also to look ahead to the action programme for 2025. The participants had the

privilege of being received by the Deputy Director of ENSAM, Mr Renaud de VERNEJOUL. The AFR would also like to thank Abbas TCHARKHTCHI (Processes and Engineering in Mechanics and Materials (PIMM) laboratory and member of the AFR) who organised this meeting and visit, and who has been supporting rotational moulding manufacturers with his internationally recognised expertise for over 20 years.

 $\frac{\text{https://www.linkedin.com/posts/anne-de-lansalut-7b445344_le-26-mars-sest-tenue-la-commission-de-activity-7178758183413288960-}{\text{M1rP}}$

Hydrobike: a pedalo revisited by Decathlon.

The French company Decathlon has looked at a new way of getting around on water by presenting a proof of concept called the Hydrobike. Combining the pleasure of efficient pedalling with the spirit of the pedalo, the Hydrobike embodies Decathlon's product vision for the future of mobility.



Developed in collaboration with Outercraft, a product design agency, this pedal-powered mini-catamaran aims to erase the boundary between land and water. It is propelled by leg power via a propeller immersed under the boat, which is more efficient than the paddle wheels of normal pedal boats. Unlike a conventional helm, the steering is reversed so that when the user points to the right, the Hydrobike points to the right, and vice versa. The Hydrobike is designed to make paddle sports more accessible to beginners. The concept is based on a 120 x

160 cm platform which, once the seat is folded away, opens up a wide range of possible activities: wildlife watching, fishing, various games, lounging and even bivouacking. Various storage compartments mean you can take a few things with you without the risk of them sinking to the bottom. Decathlon has announced that the manufacture of its Hydrobike makes maximum use of recyclable materials. The platform's modules are made from polyethylene by rotational moulding, making the technology easily accessible and therefore locally applicable. The platform in question is made up of two identical halves, so only one mould is needed for both parts. The inflatable floats are easy to store and repair. Decathlon explains that it wants to be a pioneer in the "functionality economy", which focuses on the use of a product rather than its sale, as part of a sustainable development approach. This business model has had a major influence on the design of the product. Designed for rental, the Hydrobike had to meet the needs of both users and professional rental companies. Durability, repairability and ease of storage were all parameters that the Decathlon and Outercraft teams wanted to take into account during the development phases.

https://weelz.ouest-france.fr/hydrobike-decathlon-pedalo-velo/

Harlequin Manufacturing joins the Hot Water Association.



The Irish company Harlequin Manufacturing Ltd is thrilled to announce that it is now officially a member of the Hot Water Association (HWA), an organisation committed to effectively promoting the concept and use of stored hot water in domestic and commercial buildings in the United Kingdom and Republic of Ireland.

https://www.linkedin.com/posts/harlequinmfg_hotwater-hotwaterstorage-

Gerbaldo Polimeri is adapting to EU GPP Regulations.

Among the European Union's regulations and directives aimed at promoting more eco-friendly practices within both public and private sectors, the Green Public Procurement (GPP) regulation stands out, aiming to encourage the purchase of products and services with a lower environmental impact.



A tangible example of how the industry is successfully adapting to these needs is represented by Gerbaldo Polimeri S.p.A. The Italian company has fully embraced the concept of the circular economy, offering a line of innovative and sustainable green products. One of Gerbaldo Polimeri S.p.A's latest works deserves special attention is Anemos, a compound for rotational and blowmolding belonging to the company's Green line. What makes Anemos so special is its composition, based on post-consumer regenerated materials. Thanks to years of dedicated research and technological progress, Anemos products are formulated using plastic from a selected collection and presents excellent colorimetric and physical characteristics. It is interesting to note that Anemos is available in versions with 30, 50 and 70% post-consumer plastic, while the remaining part consists of virgin resin. This innovative formulation

has enabled the product to obtain PSV certification, Second Life Plastic, reaffirming its dedication to sustainability and the circular economy, while ensuring compliance with GPP criteria and requirements. Gerbaldo Polimeri S.p.A. continues to advance in sustainability. Its presence at the upcoming Interclean Amsterdam Fair will showcase Anemos, an initiative aimed at empowering clients by offering them cutting-edge sustainable solutions to enhance their competitiveness. The case of Gerbaldo Polimeri SPA offers a concrete example of how the industry is responding to the challenges of sustainability and successfully adapting to EU GPP regulations. Through products like Anemos, the company shows that it is possible to combine production efficiency and environmental responsibility, paving the way for a greener and more sustainable future.

https://www.linkedin.com/feed/update/urn:li:activity:7181182445176684545

VARIBOX will make a presentation at the 34 Münchner Gefahrgut-Tage.

Torben Pfeffer, account manager for Germany Austria and Switzerland at Varibox, is stepping into the spotlight at the 34 Münchner Gefahrqut Tage.



His talk about "The IBC, a safe transport and storage container!" promises to delve deep into: Good usage means more safety for people and the environment, Compliance with regulations; Sustainable and recyclable reusable container, reusable for up to 10 years" How can chemicals be safely filled, transported, stored, and withdrawn? What options are available for this, and how can we optimally protect the environment and people? These topics have accompanied Torben daily for over 15 years in the chemical trade. Through close customer contact in almost all sectors, Torben has been able to gather a wide range of practical experience and expertise and discover a lot of potential for

improvement. His presentation will explain how simple a safe and sustainable supply concept can be.

https://www.linkedin.com/posts/varibox_34maesnchnergefahrguttage-sustainable-recyclable-activity-7183010747738685440-dQQN

Olivo is getting a brand new website.

OLIVO Cold Logistics website gets a makeover. It took a good 9 months of passion, collaboration and adrenaline to unveil our brand new website.



The main new features are a "Fleet Management" solution to increase the operational capability of the customers company (Olivo can take care of the recycling and end-of-life of Olivo containers); business accessory solutions for more functionality; and online resources to better share our expertise with the company. A video presents the making o of the new website.

https://www.linkedin.com/posts/olivo-logistics_olivo-is-getting-a-brand-new-website-activity-7183735467173953536-BNpK

ARMA CEO on the road.



Michelle Rose, CEO at the Association of Rotational Moulders Australasia (ARMA), has been out on the road again visiting rotomoulding factories, this time in South Australia.

A big thank you to APR Manufacturing Group, Team Poly Tanks, Kilkee Poly Products and Bushmans Tanks SA for their warm hospitality. It was a great opportunity to meet in person and discuss what's happening in the industry.

 $\underline{https://www.linkedin.com/posts/association-of-rotational-moulders-australasia-ltd_kilkee-arma-rotomolding-activity-7184007576869642240-qUV8$

Techneau wins award.

Decanteau, the compact vertical particle separator for treating run-off water from the French company Techneau, won the Innovation Award in the Environment category at the Urbest trade fair.



The company would like to congratulate all the teams who worked on this patented innovation: design office, R&D, production, workshop, sales, marketing, logistics and order preparation.

https://www.linkedin.com/posts/techneau_techneau-urbest-innovation-activity-7183844371178373120-6_RW

Aplast Hosted Meeting of the Directors' Club of the Chamber of Public Utilities of Slovenia.

APLAST was thrilled to welcome representatives from municipal companies across Slovenia to the first meeting of the Directors' Club of the Chamber of Public Utilities of Slovenia - CPUS at Aplast.



Held in the picturesque Savinjska Valley, the event featured a professional excursion, including a visit to the company facility. During this vist, Aplast had the opportunity to showcase its company and provide valuable insights into its operations and objectives. Guests were given an exclusive tour of the company production facility, gaining firsthand knowledge of the processes driving from concept to finished product.

https://www.linkedin.com/posts/aplast-si_aplast-weareaplast-activity-7184485001776795648-sgvN

The SIMOP plant France houses a machine that breaks European records.

The SIMOP plant in Montdidier, which specialises in wastewater treatment, opened its doors on 4 April to inaugurate its recent expansion work, which has doubled storage space and increased the plant's surface area by 1,500m2.



French).

The visit, attended by Catherine Quignon, Mayor of Parmentier, and sub-prefect Silvère Say, included a tour of Europe's largest rotational moulding machine. Thanks to extension work and the purchase of a new machine, a third rotational moulding line has been opened on the site, located on the La Roseraie industrial estate. The dimensions and capacities of this new equipment are impressive: it can handle up to 4 tonnes of moulds and powder in an oven 6 metres in diameter! Christophe Trouille, Industrial Director of SIMOP France, presents the machine in this video (In

https://www.youtube.com/watch?v=zt8aAWtSvjE

Promoting industrial digitalization.

The next step of the itinerant journey of "Machine Builder X"," the event format by 40Factory promoting digital culture nationwide, continues an will take place in Germany.



On June 6th, at the bielomatik GmbH headquarters, a Persico Group company, the attendees will hear from important local companies engaged in digital and innovative projects, with moderation by Open Industry 4.0 Alliance, an association at the forefront of promoting 4.0 initiatives. Together with servitization experts, the attendees_will also explore how IIoT technologies can be truly monetized, forming both a new business model for machine builders and a beneficial service for end users, within the framework of a win-win ecosystem.

https://www.linkedin.com/posts/persico-spa_the-itinerant-journey-of-machine-builder-activity-7184537477431365633-gkyw

Pentas Moulding received young entrepreneurs.

Recently, Pentas Moulding had the pleasure of welcoming the members of Businessclub Jong Gedaan, a business club for ambitious young entrepreneurs.



The company started the afternoon with a presentation about the origins of Pentas and rotational moulding. After that, it was showed, through a factory tour, how the production process in rotational moulding works. After the tour, Marthijn Koorn and Sander S. gave a presentation on the use of Al within Pentas. The afternoon was concluded with a delicious Surinamese buffet.

https://www.linkedin.com/posts/pentasrotomoulding_tour-businessclub-rotationalmoulding-activity-7184568404941381634-8jqK

Ecodesign workshop at Pelican.

On March 5, Pelican International 's product development team took part in a workshop organized by Alice Marion, Sustainable Development Project Manager at Pelican and led by Leyla Lardja, Senior Consultant at COESIO.



The aim of this initiative was to draw up a list of actions to be taken into account designing products developed by the company, focusing on an eco-design strategy, thereby reinforcing the company's commitment towards sustainable development.

https://www.linkedin.com/posts/pelican-international_le-5-mars-dernier-notre-%C3%A9quipe-de-d%C3%A9veloppement-activity-7184607825451483136-hzHS



Research & Patents

Assessment of Welded Ignimbrite Waste Dust as a Filler in Rotomolded Products: Rheological and Thermomechanical Behavior of PP/Ignimbrite Composites.

This work aims at demonstrating the potential benefits of using a mineral waste from quarries as a filler of polypropylene (PP) products obtained by rotational molding.

A polypropylene matrix was dry blended with the ignimbrite dust (mainly composed of silica and alumina) in ratios up to 30% weight, obtaining well consolidated parts in all cases. However, it can be observed that, as expected, the parts with higher loadings result in a higher number of defects due to the air release hindering. The viscosity of the obtained blends was determined by oscillatory rheometry, finding that the incorporation of up to 30% of the mineral dust is not significantly affecting the viscous behavior of the material. Furthermore, the low particle size of the filler allows for a good distribution inside the PP matrix, obtaining a homogeneous material with good dispersion. The increased amount of ignimbrite results in improved storage modulus, meaning that the filler, even in dust format, is able to stiffen the matrix at high loadings (over 20%). However, increased ratios of filler also result in a lower adhesion between the filler and the matrix and reduced homogeneity of the blend.

https://link.springer.com/chapter/10.1007/978-3-031-56463-5_17

Characterization of Microalgae Biomass/PE Biocomposites Obtained by Compression and Rotational Molding.

The non-degradable nature of synthetic plastic waste in the eco-system has led to an increase in the research on more eco-friendly materials. In this context, biocomposites have been developed and microalgae biomass has become an emerging potential source for their production.

This study assesses the possibility of obtaining composites made of polyethylene and Tetraselmis biomass as a way to improve the environmental behavior of plastic parts, reducing the amount of virgin plastic used in the process, while providing at the same time interesting features, such as stabilization. Biocomposites were produced by compression and rotational molding, testing different biomass contents. Compression molding allowed to obtain pieces with up to a 20% of biomass load with practically the same thermal and mechanical properties that pure PE parts. In the case of rotomolding, although up to a 10% of biomass could be processed, a 5% of biomass seems to be the limit to get acceptable properties and a good visual appearance.

https://link.springer.com/chapter/10.1007/978-3-031-56463-5_18



6/7 June 2024 -VIII Conferenc<u>e</u> - Roto<u>po</u>l 2024

Pragua - Czech Republic

https://rotopol.pl/index.php/en/conference/location

13/14 June 2024

ARM & IT-RO Tour of Italian Rotomolders

Italy

https://rotomolding.org/page/ExecutiveForum

17/19 June 2024

ARMA Event

Gold Coast Australia

www.rotomouldconference.com.au

18/19 September 2024 MASTER CLASS AFR

Lyon – France

Les évènements - AFR [Association Francophone du Rotomoulage]

24/26 September 2024 ROTOPLAS 2024

Rosemont, Illinois, USA

https://www.rotoplas.org/























