



Market Monitoring Newsletter

ARMO'S ROTATIONAL MOLDING NEWSLETTER

jeudi 2 septembre 2021

Research & Patents

Mechanical properties improvement of ground Tire Rubber/Thermoplast composites produced by rotational molding



In this work, ground tire rubber (GTR)/thermoplastic composites were successfully produced by combining a dry-blending technique with a rotational molding process. In order to improve the mechanical properties of the resulting composites, different modification methods were used. From the rotomolded composites produced, a complete set of characterization including morphological, physical (density and hardness) and mechanical properties (tensile, flexural and impact) was performed. The first part of the work investigated the effect of chemical blowing agent and maple wood fibers concentration, as well as two GTR surface treatments (maleated polyethylene (MAPE) in solution and microwave irradiation) on the mechanical properties of GTR/linear low density polyethylene (LLDPE) composites. The second part of the work studied the effect of MAPE treated GTR on the mechanical properties of GTR/polypropylene (PP) composites. Overall, the results showed that MAPE treated GTR was an effective approach for improving the compatibility and interfacial adhesion between GTR and thermoplastic composites. For example, the impact strength of LLDPE/GTR (85/15) composite reached a 30% improvement by adding 0.3 wt.% MAPE above that of the same GTR content without MAPE treatment. A 52% improvement of impact strength for PP/GTR (50/50) by introducing 2 wt.% MAPE was obtained compared to the composite with the same content of untreated GTR.

Click here to read more : <https://polyvia.kbplatform.com/source/460394/>

Rotomolding Market News - Europe

LANXESS presenting two new low free prepolymer technologies



During the Polyurethane Manufacturers Association (PMA) annual meeting, the Urethane Systems business unit of specialty chemicals company LANXESS has presented two new prepolymers of the Adiprene range that are produced using low free (LF) technology so they contain very low diisocyanate content. One of these two new prepolymers is a unique 1K blocked prepolymer, Adiprene K LFM E820, based on caprolactam (CAP) blocked prepolymer and diamine curatives. Less viscous blocked prepolymer systems, which are based on LF technology, allow for chemistries with non-traditional raw materials, including more viscous polycarbonate polyols and unique amine types. These stable 1K systems provide processors with numerous advantages, including increased control of the curing process and increased product consistency from batch to batch. Without restriction on pot life, these systems allow for the processing of large parts, complex contour designs, and roto-molding of hollow parts. These systems can offer enhanced thermos-mechanical performance, processing ease, and enhanced industrial hygiene. The variety of possible applications of blocked LF prepolymers ranges from small thicknesses of 1-2 mm to really large parts up to several tons. For example, these systems are used as abrasive pad binders or coatings of industrial rollers, as well as in the impregnation of industrial belts. Another advantage for the processor is the elimination of the need for a mixing and metering system, which pays off in terms of component costs. Potential applications include dynamic bend stiffeners for thick cables such as submarine cables, industrial rolls, components for wind turbine rotor blades or large composite structures.

Click here to read more : lanxess.com

Rotomolding Market News - North America

How does Mylec make its street hockey balls?



Myers Industries Inc. announced that it has acquired the assets of Trilogy Plastics, a custom rotational molder specializing in high-tolerance parts and assemblies. This is Myers' second acquisition in the last nine months and is framed by the company as part of its "One Myers" long-term strategic plan. In November 2020, Myers acquired the assets of another consequential rotational molding company, Elkhart Plastics. Founded in 1987, Trilogy Plastics manufactures custom products for the industrial, consumer,

lawn and garden, heavy truck, medical, and other markets. The combination of Trilogy with Myers' Ameri-Kart and Elkhart businesses will create one of the largest rotational molding manufacturers in the United States and will provide Myers' customers with access to a more complete portfolio of diverse products, said the news release. Trilogy Plastics will operate as a part of the rotational molding platform within Myers' Material Handling Segment. Headquartered in Alliance, OH, Trilogy has two US manufacturing facilities and employs approximately 265 people. Trilogy's annual revenues are approximately \$35 million, and the acquisition is expected to be slightly accretive to earnings in 2021. Myers expects the transaction to generate cost synergies of approximately three percent of sales.

Click here to read more : eu.thegardnernews.com

Teknor Apex Expands Dry Color Portfolio Through Acquisition

16/08/2021



Teknor Apex has acquired the dry color business of Akron, Ohio's Dorum Color Company, a leading North American supplier of dry color with a singular focus on the rotational molding market. The deal, which expands Teknor's dry color portfolio, is structured as an asset purchase and customers will be supplied from Teknor's Henderson, Kentucky Facility. Dorum Color was founded by Scott Dority in 1998. He brought significant expertise to the company along with extensive industry experience that included working for Teknor Color in Ohio. He is an acknowledged expert in the rotational molding industry and has been an active participant in the Association of Rotational Molders (ARM) offering technical presentations and color workshops worldwide. He will play an active role in the transition of Dorum customers and suppliers to Teknor Color to ensure supply security and business continuity.

Click here to read more : www.ptonline.com
