SIBUR for Clients
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INNOVATION IN RESPONSE TO THE PANDEMIC

International Plastic Guide is introducing advanced technologies and developing new products.

How has the pandemic impacted your company activities? In your opinion, which areas required particular attention?

In order to remain competitive and maintain growth, we needed to broaden horizons and approach seemingly familiar business processes fr om new angles. For International Plastic Guide, the past year has served as a new starting point, as motivation for expansion, and for getting stuck into research opportunities. The company's management decided to focus on the development of one of the key areas for the company – science and practice, as well as laboratory research.

THE FOAMED POLYMER MARKET HAS BEEN A TARGET FOR US FOR MORE THAN 15 YEARS, ACCOUNTING FOR 80% OF TOTAL ADDITIVE SUPPLIES FOR THE PRODUCTION OF HEAT AND NOISE INSULATION

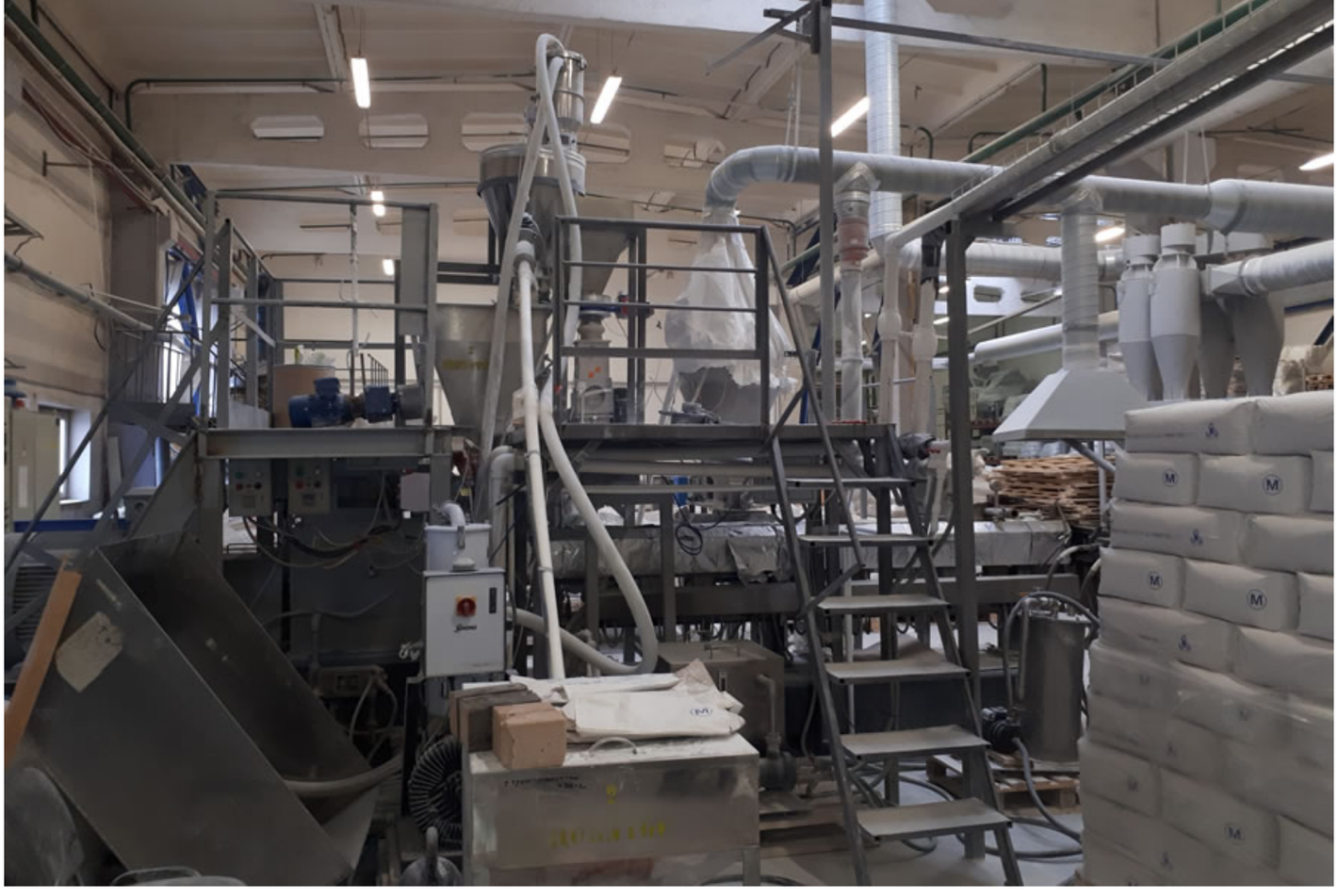
What steps were taken?

A laboratory extruder for processing foamed polymers was acquired. The foamed polymer market has been a target for us for more than 15 years, accounting for 80% of total additive supplies for the production of heat and noise insulation. Our company's priority is to provide a complete portfolio of products tailored to the individual needs of consumers, as well as selling our own formulations for the production of foam products. The use of the laboratory extruder will expand our research capabilities in polymers and polymer compounds, the effect of various additives on the foaming processes, as well as enable deeper understanding of gas-filled polymer materials, including research into traditional and new polymers, gases of different structures, and various additives affecting the process of obtaining gas-filled polymer materials.

What do you think will be the result?

Thanks to the high-tech equipment that will be installed in International Plastic Guide's laboratory, we will be able to put our existing scientific and practical expertise to new uses, developing new solutions in laboratory trials and production of foam products.

Innovations include an operating procedure fundamentally different fr om the previous, conventional extrusion equipment, the use of gas mixtures, and production of gas-filled polymer materials that were not previously used widely. It is also now possible to get finished foam products in laboratory settings.



International Plastic Guide's production shops will be furnished with new equipment.

Can you please give more colour on what the new technology is about and on the benefits it will bring to consumers?

The new laboratory equipment will enable us to model and research the influence of gas and additives on the foaming process for various polymers, accelerating the overall process. Previously, this was only possible in manufacturing settings, greatly increasing the length of the product development process, and ultimately hampering the market's ability to promptly respond to consumer demands.

THE SECOND AREA OF DEVELOPMENT FOR THE COMPANY HAS BEEN GETTING ELECTRET ADDITIVES ON THE MARKET. THE UNIQUENESS OF THE PRODUCT COMES FROM ITS ABILITY TO IMPROVE THE FILTRATION PERFORMANCE OF THE NON-WOVEN MATERIAL KNOWN AS MELTBLOWN

In addition to the already mentioned projects, are there any other new developments?

The second area of development for the company has been getting electret additives on the market. The uniqueness of the product comes from its ability to improve the filtration performance of the non-woven material known as meltblown. This specific property of the material is of vital importance for non-woven medical products, which require increased air filtration and protection from viruses, dust, and droplets (for example, medical masks), or in manufacturing settings wh ere industrial filters are used, i.e. wh ere the most "clean", filtered air is required. For better absorption the material is given an electric charge, which increases the filtration performance. Electret additives retain the electrostatic charge of the polymer surface, maintaining the material's filtering capacity for much longer time and increasing its breathability.

The increased demand for electret additives seen currently in the spunbond market is driven by stronger demand for "disinfection" of materials offering medical, filtering, and cleaning properties.

What value do SIBUR's feedstocks bring to the above described projects? Are there any plans to purchase more of them?

We use SIBUR polypropylene to produce protective masks enhanced by electret additives. This product offers higher filtration performance and will not lose relevance in this current year. We always aim to fully understand the market conditions, demands and needs, so our procurement planning system is built around flexibility and demand matching. We expect to increase the volume of feedstock purchases in the future.

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