



THE GOAL IS TO GROW WITH THE MARKETS

Tatiana Serova, CEO of International Plastic Guide, talks about additives for the production and processing of polymers and their role in dealing with plastic waste.

What are the key focus areas of International Plastic Guide? Who are your main clients?

We specialise in supplying additives to polymer manufacturers and providing our customers with professional technical support.

We are the exclusive distributors of the world's largest producers of polymer additives such as Fine Organics Industries (India), Marcus Oils & Chemicals (USA), EPI (Canada), Addichem (China), Padanaplast (Italy), Americhem (USA), and Rajive Plastic (India). We also work with 3V Sigma (Italy) and Cabot (USA). On top of that, we have five brands of our own: Penoform, Slipform, Lightform, PROVODBATCH, Silky Touch.



International Plastic Guide has been operating in Russia since 2005 It supplies colour concentrates and additives for polymer production, being an exclusive distributor for a number of international companies. It was the first to introduce oxo-biodegradable additives to the Russian market.

As part of technical support, we help our clients to select formulas, set up equipment, and optimise production process by adjusting temperature, pressure, and dispenser settings. Our technical support specialists and managers provide on-site consultations for our clients on different matters, including polymer replacement, pilot test oversight, etc.

We focus on three key markets: foamed thermal and noise insulation (serving such key clients as [TECHNONICOL](#) (/en/11/article/news/efficient-solutions-for-zapsib/), PENOPLEX, Penoterm and ROLS ISOMARKET), spunbond (Netkanika, [Gexa](#) (/en/9/article/news/authorised-supplier/)), and basic polymers, compounds, and masterbatches (SIBUR, Bars-2). We sell pure additives to SIBUR.

Another important focus area for the company is promoting and developing the Russian market of innovative technologies and ingredients for the production and processing of polyolefins, styrene plastics, and PVC. We introduce Russian companies to global experts and best practices in the field. For example, in November 2019, we invited to Moscow Professor Chul B. Park, Head of the Polymer Materials Department at the University of Toronto, Director of the Microcellular Plastics Manufacturing Laboratory, to give a [lecture on polymer foaming technologies](#) (en/14/article/focus/global-expertise-in-polymer-foaming/).



Professor Chul B. Park delivers a lecture at Skolkovo.

WE HAVE NO INTENTION TO EXPAND INTO NEW MARKETS. INSTEAD, WE ARE PLANNING TO GROW WITH THEM. ALL THREE OF OUR KEY MARKETS ARE EXPECTED TO GROW, AND AT THE VERY LEAST WE SHOULD BE ABLE TO MAINTAIN OUR MARKET SHARE, POSTING COMMENSURATE GROWTH RATES.

«International Plastic Guide attends all major international events in our target markets, including the annual Polymer Foam Conference

This year International Plastic Guide is turning 15 years old. Over these years, the company has gone a long way from a newcomer in the polymer market to a leading supplier and manufacturer. How did the company evolve over the years? What are your development plans going forward? Are you considering expanding into new markets?

The key to our growth and development is our team. Our experts are contributing greatly to the Company's success. Our leading experts are Eduard Zamyslov, PhD in Chemistry and Technical Director at International Plastic Guide, a regular participant of industry conferences, exhibitions, and seminars, author of 21 research papers with four patents in his name, and Oleg Bobkov, who has been working in technical support for over 15 years, starting his career at JSC Plastik (</en/10/article/partners/industry-as-a-single-interconnected-organism/>) (Uzlovaya, Tula Region).

With regard to plans, we have no intention to expand into new markets. Instead, we are planning to grow with them. All three of our key markets are expected to grow, and at the very least we should be able to maintain our market share, posting commensurate growth rates. Going forward, we will strive to improve our service quality, conduct additional tests, find new products and solutions for our markets, and work to enhance customer experience.



International Plastic Guide's production site.

GOING FORWARD, WE WILL STRIVE TO IMPROVE OUR SERVICE QUALITY, CONDUCT ADDITIONAL TESTS, FIND NEW PRODUCTS AND SOLUTIONS FOR OUR MARKETS, AND WORK TO ENHANCE CUSTOMER EXPERIENCE.

International Plastic Guide is actively developing the foamed polymers market, a relatively new industry that has been in existence since the early 2000s. Could you provide some details about this market, the positions and prospects of Russian manufacturers? How competitive are Russian producers, do they have advanced research and development capacity?

The foamed polymers market includes expanded polystyrene and foamed polyolefins. The polystyrene market is on the rise, as thermal insulation materials are in great demand and increasingly replacing glass wool, which provides significant potential for further growth. It is particularly supported by the rising popularity of eco-friendly housing with low energy consumption and energy-saving technologies. There are about seven manufacturers in this market, of which TECHNOMICOL and PENOPLEX are the leaders.

Foamed polyolefins are also a growing industry with some 40 producers, including ROLS ISOMARKET and Penoterm. Most companies are medium-sized, consuming about 200 t of polyolefins per month. We estimate that in 2020 the markets will grow by 5%.

Today, all foamed polymers in Russia are made domestically, as imports have been fully substituted. Market leaders work on high-quality equipment and have state-of-the-art R&D facilities on par with the best international standards.

WE CATER TO CONSUMERS IN ALL THREE OF OUR MARKETS WITH A PRODUCT PORTFOLIO INCLUDING ADDITIVES FOR FOAMED THERMAL AND NOISE INSULATION, FOAM STABILISERS, FIRE-SAFE ADDITIVES, A VARIETY OF RECYCLABLE MATERIALS, EXCLUDING BASIC POLYMERS, WHICH WE BUY FROM SIBUR.

International Plastic Guide is the leader in Russia's market of oxo-biodegradable additives. Tell us more about this segment. What properties do they contribute to polymers? What differentiates oxo-biodegradable plastics from biodegradable polymers?

We believe that oxo-biodegradable additives are key to tackling the plastic waste issue when it comes to food packaging such as shopping bags and disposable cups. These kinds of plastic waste are difficult to collect and sort. Oxo-biodegradable additives make it possible to degrade plastic waste even when it is unsorted and landfilled at the depth of up to two metres. The degradation of the polymer chain in typical products begins in 18 months. At the second stage of biodegradation, microbes turn polymers into water and carbon dioxide.



Oxo-biodegradable additives enable polymer degradation of unsorted landfilled waste.

THE POLYSTYRENE MARKET IS ON THE RISE, AS THERMAL INSULATION MATERIALS ARE IN GREAT DEMAND AND INCREASINGLY REPLACING GLASS WOOL, WHICH PROVIDES SIGNIFICANT POTENTIAL FOR FURTHER GROWTH.

The additive has no impact on the production process, the polymer stability and other properties. This is confirmed by numerous studies that we have been conducting for more than 10 years.

Oxo-biodegradable plastics differ from regular biodegradable plastics by the way they work and the degradation conditions of the materials. For example, biodegradable plastics need to be collected, sorted, and then placed in a special compost at 50–60°C. This technology requires separate waste collection and composting facilities. Neither of which is currently widely available in Russia. Therefore, oxo-biodegradable plastics can be an efficient solution for tackling plastic waste.

What other additives for polymer processing can contribute to the recycling of plastics?

These primarily include dehumidifiers to absorb moisture, antioxidants to prevent thermal oxidation during processing, compatibilisers to mix different types of waste, and dyes to ensure a single colour for the processed waste.

What are the current market trends for polymer processing additives? Have there been any major innovations recently, particularly involving “green” solutions?

MOST FOAMED POLYOLEFIN COMPANIES ARE MEDIUM-SIZED, CONSUMING ABOUT 200 T OF POLYOLEFINS PER MONTH. WE ESTIMATE THAT IN 2020 THE MARKETS WILL GROW BY 5%.

Sanctions provided a major boost to the market and served as a strong growth driver. It forced many of our consumers and their customers to place the greatest emphasis on import substitution. For example, over the past 3–4 years the number of Russian masterbatch producers has increased from 7 to 30.

We are also witnessing a growing popularity of eco-friendly products with most producers offering green materials as part of their portfolios. Among our clients is Fine Organics, which manufactures additives exclusively from vegetable feedstock, in particular oleamide and erucamide, as well as green plasticisers.

Another trend is the growing recycling of polymers. At industry exhibitions, the number of exhibitors offering recycling equipment is increasing every year.

Also worth mentioning are antifogs. More food products with a short shelf life are packaged fresh, which requires wider use of antifog films and their varieties.



The company's stand at Rusnanotech 2011.

WE BELIEVE THAT OXO-BIODEGRADABLE ADDITIVES ARE KEY TO DEALING WITH PLASTIC WASTE WHEN IT COMES TO FOOD PACKAGING SUCH AS SHOPPING BAGS AND SINGLE-USE PLASTICS.

What requirements do you have for your suppliers? What are the key areas of cooperation between your company and SIBUR?

The main requirement for polymer suppliers is to ensure constant availability of products in stock and the stable feedstock quality. SIBUR fully meets both of them. It is our main supplier of polyolefins, including polyethylene and polypropylene. We also work with NIOST, SIBUR's R&D centre in Tomsk, and the Skolkovo-based SIBUR PolyLab (</en/12/article/cover-story/sibur-polylab-meeting-customer-demand/>) research centre in Moscow on development of new grades. In addition, we supply SIBUR with erucamide and antistatic agents used to impart special properties to polypropylenes.

SIBUR works continuously to improve the quality of raw materials and strengthen customer support. For example, we could not use one of its polyethylene grades due to a high content of paraffin. SIBUR agreed to finetune the grade's production technology, and following the tests, we have been using it without limitations. Until recently, such approach was more of an exception. Even today, most suppliers act as if there is feedstock deficit in the market, and are not forthcoming when it comes to client needs.