

## PROFILE

### FOUNDATION

- in 2007

### EMPLOYEES

- small size company

### KEY PRODUCTS/ SERVICES

- biodegradable/compostable flexible films
- bags

### KEY MATERIALS

- biodegradable materials

The participating Croatian small company specializes in developing and manufacturing value-added biodegradable/compostable flexible films that outperform non-degradable and other biodegradable materials currently on the market. They strive to develop eco-efficient production of biodegradable films that combines new technology and high productivity with positive effect on environment. Company started with operations in 2007 and the ownership is domestic private. It represents greenfield investment of 5 mil EUR and currently employs 28 workers. Installed production capacity is 5000 tons/year, enabled by state of the art extrusion, converting and regranulation equipment. Their export share is between 80% and 100% what is extremely high. Average revenue growth in the last three years was between 10% and 25% and the number of employees had been doubled in the last three years.

The innovation is a very important field for the company however the innovation investment of their investment budget was between 0% and 10% in the last 3 years. The innovation is realized internally, within the group and externally also, within the value chain. The decisions are taken by the top management of the company, technical division and R&D division. The support of the management is very high regarding innovation and even the staff attitude toward change for innovation however to find new skilled staff is very difficult in Croatia. At present the company's resource of innovation knowledge is mainly conferences and the corporate group. The company's willingness to develop their innovation is influenced at medium level by the possibility of having public funding for research.

## SUSTAINABILITY, USING OF BIOMATERIALS

The sustainability focus of the company is in priority, they have qualitative goals however they do not have any sustainability report or certificate. At present their activities on sustainability are caused by external factors and around 10% of their investment budget goes towards improved sustainability. The importance of end-of-life management for their materials and product is very high. For their costumers the price is the more important than the sustainability.

Bioplastic material using is quite important for their environmental sustainability strategy and they are familiar with legislation for sustainable products (recycling, composting biocontent etc.). The company already made test trials with biomaterials. According to them the key limitations of biomaterials are the price, legislation and functional properties. On production side their main sustainability goal is the energy and lower resource and regarding the main sustainability goal on end of life side, they are focusing on promoting renewable biobased product.



## PRODUCTION SPECIALITIES

Biocomposite is produced internally at the company. From the supplier the technical data sheet, declaration of conformity and analytical report is ensured. The end-product is printed and the main functionality what is requested is mechanical resistance and barrier to liquid. It must comply with EU & National Food contact, Waste Packaging Directive and REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals). The main target of product design is the functionality, material efficiency and consumer level. Regarding product end of life, their first option is recycling, the second is reuse followed by thermo-valorization and finally landfilling. They prefer composting within recycling and own closed loop within reuse.

The current printing technology is flexographic and inkjet at the company. They are using solvent based flexo inks. The printing technology's main limitation is the number of colors, the type of ink and pigment.

## SUMMARY AND SOLUTION

Considering the financial position and strategy of the company and taking into account the Croatian market and demands the best solution would be using biodegradable material instead of plastic. Ecoflex is the first bio-based and certified compostable polymer of BASF on a fossil basis and is on the market for more than a quarter century.

The environmental awareness increased massively and consequently, also interest and bigger demand for environmentally friendly products, Scandinavian countries drive the demand for biodegradable anticorrosion packaging materials for the metal parts mainly used in the automotive industry. The company could be one of the main suppliers in these markets and it would result much higher turnover for the company. They have already existing production lines and capacity, adaptable for the new biodegradable material which is highly important for security regulations.

