

Dear Customers,

We are watching with interest the discussion taking place in Europe on the subject of reducing natural environmental pollution, charging "plastic" as the main culprit of the current situation and ideas / actions that will reduce the currently used plastic packaging (especially light ones such as disposable tableware, straws or plastic bags) and replace them with alternative ones that can be composted (biodegradable). Another, less radical in relation to the currently used hard plastic packagings, is the idea of increasing the share of recycled materials in the packaging production (limiting the amounts of primary, "virgin" materials).

We, Marcato, as an important player on the market of plastic packaging manufacturers, we generally agree with the need to introduce systemic changes that will help to reduce the pollution of the environment, including seas and oceans, with all types of waste, including plastic waste. We also believe that the source of the problem is not the plastic itself, which as a recyclable material is just second to none. We only need to learn how to handle it (e.g. packaging) after use, i.e. collect (and not throw into rivers or somewhere else), properly segregate and the problem will be, to the great extent, solved. In short, education is a very important element of limiting the environmental impact of the use of various types of packagings produced from plastics.

What we think is important today and which way we take.

1. Resignation from multilayer structures;
2. Increasing the share of recyclates;
3. Weight reduction of packaging;
4. The use of biodegradable materials.

What we, as producers together with you - the users of packaging can do now, is to cause the recycling of packaging materials will be more complete (which is consistent with the assumptions of the circular economy). There is a simple method - to reduce (ultimately to resign) multilayer structures made of different materials, what will make recycling more effective. One of the main themes in many articles and published materials is the problem of "hard black plastics" originates from multi-layered materials, which as production waste from the plant producing packaging or (recycled) material purchased from recyclers is used again for the production of mainly black foils. These are black, as the commonly used MAP trays (the basic packaging product used in retail meat sales) made of PET / PE (PE-polyethylene laminated layer is required because of the upper foils, covering the trays, made of PE or another polyolefin) after a properly conducted recycling process will not be used for re-use in the production of transparent films (we can make transparent / colourless packaging of it) because it contains PE, which "kills" the transparency of PET. It can be used for the production of films / packaging, e.g. black because here transparency is no longer relevant. The described case captures the essence of why the market for black trays has evolved so much.

Increasing the recyclability of packaging produced in Marcato is possible by replacing, in possible applications, multi-material structures with monomaterial structures (which are easier to recycle). However, it should be emphasized that the use of many plastic multi-material packaging as secondary raw materials is not impossible, but only more difficult. The processing of laminates or coextruded materials requires the use of high-class machines and the development of special techniques for the preparation of such raw materials. Marcato already has extensive experience in the processing of this type of secondary raw materials and is constantly working on increasing the scope of their use. Research on the use of multi-material secondary raw materials is the subject of one of the projects co-financed by the European Union.

In a nutshell, the simpler (more homogeneous) structure of the material from which the packaging was made, the easier it is to fully recycle it.

At Marcato, we believe that the strategically important (part of the expectations of market regulators) action is to increase the share of recycled raw materials in packaging production. Minimizing the use of virgin materials and replacing them with recyclates is a twofold action supporting current ideas because on the one hand we limit the amount of plastic introduced (the one coming directly from petroleum) and on the other hand we reduce the amount of plastic that accumulates in landfills.

The Marcato company already has the appropriate technologies that enable the production of packaging in accordance with the above idea, and thus we already produce and will offer more and more packagings that we can call environmentally friendly.

As few in Poland, we have invested in a special tower (SSP tower), which enables the company (as a result of the decontamination process) to clean the recycled PET flake. Thanks to this process, the raw material is allowed to come into contact with food, and thus the packaging produced at Marcato can be produced from 100% recycled raw materials. Research on the production of packaging without the use of virgin PET is subject to a project co-financed by the European Union. The possibility of processing recycled raw materials means that Marcato not only processes secondary raw materials from own production and purchased from the market, but also does not introduce them. This enables the solution of an important environmental problem in the area of plastic waste management and is part of the EU policy regarding the reduction of the amount of collected waste through its reuse. In addition, during use of the tower, it is possible process to raise the viscosity of the recycled material (i.e. to improve / restore its mechanical properties and thus resignation from virgin PET) in the solid state polycondensation (SSP).

Marcato is currently in the process of developing a technology of production of polyester foamed structures with significantly reduced density compared to solid structures. Foaming is carried out on an extrusion line equipped with a special device in which the gas (carbon dioxide or nitrogen) is mixed effectively with the molten material of relatively high viscosity. Density reduction of the polyester film by foaming means reduction of the packaging weight, and thus weight reduction of the packaging waste. The "disadvantage" of this type of packaging is that they cannot be transparent. At the same time, we believe that in many applications (especially those where the packaging must remain transparent, so we cannot use foamed foils), it is also possible to reduce the weight of packaging by changing the thickness of the film to a thinner one. The packaging currently used are too solid.

Owning high-class machines enables Marcato to use technological possibilities of making packaging from biodegradable plastics, in polylactide type. Polylactide or poly(lactic acid) (PLA) is a biodegradable material derived from renewable sources such as cornstarch or sugar cane. PLA is the front runner in the bioplastic market with the best availability and the most attractive cost structure. The production of the polyester from lactic acid, a naturally occurring acid, is relatively straightforward. PLA is a material with rigidity and clarity similar to polystyrene (PS) or poly(ethylene terephthalate) (PET). End uses of PLA are in rigid packaging, flexible film packaging, cups, cutlery, bottles, and so on. PLA is biobased, resorbable, and biodegradable under industrial composting conditions.

If our customers accept higher prices (due to the current price of the raw material), there are no technical limitations for us to produce such packaging. At the same time, we want to emphasize that replacing plastic packaging with "compostable" cardboard packaging is definitely a mistaken approach. It is due to the fact that cardboard packaging is not paper packaging but laminates made of cardboard and plastics, multi-material structures. Recycling of packaging consisting of such different raw materials, with different properties or processing characteristics, is not easy, and waste from such quasi-ecological packaging may have more destructive impact on the environment than plastic packaging waste.

Of course, all of the above-mentioned activities are carried out by respecting all the requirements that are placed on our packagings, especially those related to the safety of the products packed in them or "shelf life". We are ready to cooperate with our customers in all kinds of tests of new types of packaging in order to check how the packaged products will behave.

At any time, we are ready to share our current knowledge and new ideas.

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