

Powder, capsule and tablet-based dietary supplements in sustainable healthcare waste management

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In order to maintain health, the majority of people use dietary supplements, all of which are available in different packages, forms and packaging. However, most of the packaging and storage boxes have the same property: they are made of non-biodegradable plastic. But what would happen if we consciously paid attention not only to our health, but also to the health of our environment, water and Earth?

Humans currently produce more than 350 million metric tons of plastic waste per year. Single-use plastic containers for dietary supplements also contribute to this. The handling and destruction of the increasing number of non-degradable plastics imposes an ever-increasing problem and costs on waste management. If we changed the material of this packaging, we could save significant costs and the resulting waste could decompose more easily.

Our solution to this ever-increasing cost problem is the reinforced PLA with plant-based starch, which is widely used in the food industry and contains only natural raw materials. The plant components of PLA (polylactic acid) can be corn starch, hemp, sugar cane or even sugar beet. Thanks to these plant components, we get the easily compostable material, which is not only an environmentally friendly solution, but also significantly reduces the amount of plastic waste and the costs of its processing. Composting is not only possible industrially, but the customer can also compost at home, which can reduce the amount of waste collected by waste carrier companies.

The production of the reinforced PLA dietary supplement containers can be realized by using several technologies, such as injection molding or even heat blowing. In this way, it can be ensured that they are made with a screw cap or lid, similar to the operation of the usual plastic containers, which ensures easy handling for the consumer. With their natural appearance, good physical properties and compostability, the containers can target a new target group so that a conscious and environmentally friendly society can be created.

The undersigned, Klaudia Nagy, as the owner of this innovation right, guarantees that I have the right to dispose of it.



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