



# **RECYCLING OF PHARMACEUTICAL BLISTERS**

***AN INITIATIVE OF THE PVC FILM INDUSTRY FOR SUSTAINABLE DEVELOPMENT***

# RECYCLING OF PHARMACEUTICAL BLISTERS

## Pharmaceutical blisters in the healthcare sector

PVC products have been successfully used in the healthcare sector for decades. These include pharmaceutical blisters for packaging drugs and are mostly made of PVC compound foils and aluminium. They offer a high degree of safety, through excellent barrier properties and make it possible to take the medication individually without impacting the shelf life of the remaining tablets. They keep them sterile and reliably protect against germs, bacteria, moisture and oxygen.

## Recycling initiative launched

Pharmaceuticals that are no longer needed must be disposed of safely. This also applies to used pharmaceutical blisters. This post-consumer waste is therefore thermally recycled.

There is also the “post industrial waste”. These are waste such as punched grids



Pharma blisters made of PVC composite films with aluminium protect content reliably and safely from damage for example by moisture, and allow a light dose of medication.

empty packs from production, which are created by the manufacturing process of blisters and the packaging of medicines. These waste materials can be recycled. This is why the PVC film industry has launched a recycling initiative, which takes into account all steps: from the collection, transport and recycling of waste to the manufacture of new products from recycled PVC. The aim is to conserve valuable resources, optimise the carbon footprint of the products, and support pharmaceutical companies in achieving their sustainability goals and save costs.

## The recycling process

Pharmaceutical blisters usually consist of PVC composite films, which are mainly sealed against aluminium. To re-use this we recover materials from packaging production, punching grids and empty blisters are collected and transported from there to a recycling partner. The materials are separated and the post-industrial waste is crushed and then separated into its main components, PVC and aluminium. Converters produce spacers for the construction industry, for example, from the fine PVC milled material. From the aluminium fraction emerge in metal processing, including light engine blocks for new cars.



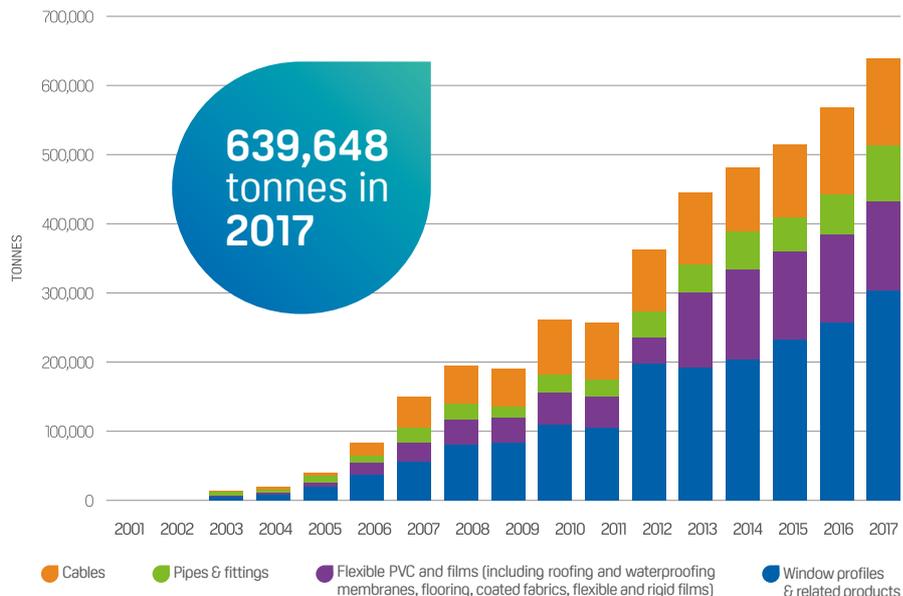
Punching grid and empty pharma blisters made of PVC-aluminium-composite material will be recycled and processed to new products.

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## VinylPlus® Sustainability Programme

VinylPlus, the sustainability programme of the European PVC industry, has set itself the target of increasing the annual PVC recycling volume to 800,000 tonnes by 2020. By 2017, around 639,648 metric tons of waste had already been recycled, mainly from the construction sector. This amount will save more than 1.1 million tonnes of CO<sub>2</sub>, reduce primary energy requirements by about 90 percent and create new jobs in the recycling sector. Since the year 2000, the industry has invested a total of 100 million euros in PVC recycling activities. The recycling initiative for pharma blisters recycles further recycling volumes back into the materials cycle. Approximately 10,000 tons of stamped metal grids are produced each year for the packaging of medicines, from which approx. 2,000 tons of aluminium can be recovered. This saves approx. 18,000 tons of CO<sub>2</sub> compared to "new" material and is sufficient for the production of approx. 120,000 new engine blocks. The

## PVC RECYCLED WITHIN THE VINYL 2010 AND VINYLPLUS FRAMEWORKS



corresponding PVC recycling quantity is approx. 6,500 metric tons and saves around 12,000 metric tons of CO<sub>2</sub> during reuse. The recycling initiative thus makes an important

contribution to sustainability in the value chain, preserves valuable resources and proves to be a pioneer for the European Circular Economy Package.

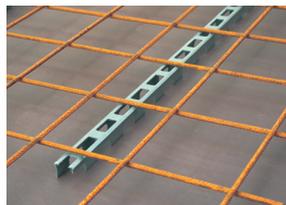
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## Partner of the recycling initiative for pharmaceutical blisters

The recycling initiative for post-industrial waste, which originates from the production of blisters and the packaging of medicines, was launched by IVK Europe in cooperation with AGPU and VinylPlus®.



Images showing the pharmaceutical blister-originating PVC fraction (left) and the separated aluminium fraction (right).



Among other things, the fine PVC regrind is processed into spacers for the construction industry (left). Aluminium pellets (right) are used in the metal industry, i.e. for new engine blocks.

Photo: © MAX FRANK Gruppe

## contact

If you have any questions about the pharmaceutical blister recycling initiative, please contact us:

**Thomas Hülsmann**  
AGPU e.V.  
53113 Bonn, Germany  
Phone: +49 228 91783-0  
agpu@agpu.com  
www.agpu.com

Associate member of VinylPlus®  
www.vinylplus.eu

**Karin Arz**  
Industrieverband Kunststoffbahnen e.V.  
– IVK Europe  
Airport Club FAC 1, Hugo-Eckener-Ring  
60549 Frankfurt am Main  
Phone: +49 170 801 4525  
Brussels office: +32 2 741 82 82  
info@ivk-europe.com  
www.ivk-europe.com