

AVK Plastics surface box recycling process

This infographic illustrates the complete recycling process of AVK Plastics' surface boxes.



Production of plastics

By far most plastics are made out of **fossil fuels like oil and gas**. About four or five percent of the oil and gas extracted worldwide is used to make plastics and synthetic rubbers.

Virgin material in consumer goods

Plastics which are new and therefore suitable for all applications are called **virgin**. This virgin material is used in e.g., the food industry where strict food safety regulations apply, but also in other consumer goods like televisions.

If material specifications are wider than the intended range when material was produced, the material is called **off-spec**. This off-spec material can still be very suitable in multiple applications.

From product to shredded pieces

After a certain period of time plastic products are thrown away. From various sources, like recycle containers and waste incinerators, plastics are collected and eventually shredded to pieces.

This post consumer plastic material is referred to as **first regrind** which means no more than that the material is used and regrinded for the first time. AVK Plastics uses first regrind polyamide and polyethylene to make surface boxes.

Synthetic surface boxes

Each year thousands of tons recycled material are processed into high quality synthetic products. Incoming goods are thoroughly tested before processing.

An automated mixing and transporting system guarantees a constant flow of raw materials and most of AVK Plastics' production is automated. This results in reliable processes, maximum efficiency and a constant quality of finished goods.

Once installed correctly, **synthetic surface boxes of AVK Plastics** have a very long lifetime.

Recycling and energy recovery

AVK Plastics strives to have a **minimal impact to the environment** by using recycled material which, in turn, can also be recycled or reused. At some point also durable surface boxes of AVK Plastics need to be replaced or removed. After the surface boxes have served their purpose they can be **recycled** or used for **energy recovery**.

>60

different types of synthetic surface boxes are available at AVK Plastics.

1500

tonnes is the maximum clamping force of AVK Plastics' injection moulding machines.

±75

percent less carbon footprint when choosing a synthetic surface box over a cast iron surface box*.

>25

countries are being supplied with high quality synthetic surface boxes and accessories.

>10

million surface boxes have been produced at the production facility of AVK Plastics in Balk, the Netherlands.

50

kilograms is the maximum shot capacity of AVK Plastics' injection moulding machines.

*calculation based on Lifecycle Assessment methodology by ISO 14040-44 standards. A fictional cast iron version based on figures known by AVK is used in this calculation.