

Conversion of recyclate into high quality compounds. With Coperion's first-class technology.





### TRANSFORMING RECYCLING TO UPCYCLING

Coperion technology plays a key role in the global manufacture of high-quality compounds. We have acquired an excellent reputation in recent years in markets where such compounds are made from recycled plastics. Today, ambitious recycling companies worldwide are using Coperion's technology, motivated by the uniformly high quality of the finished product and the high achievable throughput rates.

Coperion designs complete recycling systems. We ensure the smooth interaction of all process steps from material handling

to feeding, twin screw extrusion, pellet treatment (cooling, drying, homogenization) and finished product handling. Our plants provide maximum productivity and efficiency.

When it comes to inline processing of PET Coperion has developed a technology in which neither pre-drying of the materials nor crystallization and agglomeration of recyclates are necessary in comparison with conventional PET processing techniques. This direct extrusion process enables the production of semi-finished products in one process step.



#### **Extruders and Compounding Machines**

Coperion's ZSK and STS twin screw extruders are the heart of the recycling process. With their superior processing properties and high devolatilization performance they are suitable for the processing of new materials and of all types of ground products or recyclates as well as mixing of these materials. This direct extrusion process enables the production of films, fibers, injection molding pellets or semi-finished products inline in one process step.



# **Material Handling Equipment**

Our material handling systems are designed for the challenges of conveying recycled materials. Our designs can handle a variety of products from flake and powder materials to your finished pelletized products.



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# **Feeding Equipment**

Coperion K-Tron feeders are ideal for accurate feeding of raw ingredients. The wide range of products available includes twin screw feeders, single screw feeders, bulk solids pumps, vibratory feeders as well as other types in a variety of sizes and configurations. The K4G blending station allows up to six feeders to be arranged closely around an extruder inlet. Coperion K-Tron feeders ensure a continuous, uniform infeed with a very tight short-term accuracy and repeatability.



## **Plants and Systems**

Our comprehensive engineering expertise enables us to design compounding lines for recycled products that ensure smooth interaction of all process steps – from material handling to feeding, extrusion up to pellet treatment and finished product handling.

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