



ECORANGE

The future is sustainable







Exolon Group: Going Beyond

High-quality thermoplastic solid and multiwall sheets: We at the Exolon Group realise transparent and translucent dreams in plastic which are particularly weather-resistant and durable.

In addition to polycarbonate solid and multiwall sheets of the Exolon® brand, our sustainable portfolio also includes Axpet® polyester sheets and Vivak® copolyester sheets.

Our aim is to offer outstanding products which are not only practical but also remain in service as long as possible. To this end we develop and manufacture environmentally compatible and sustainable sheets to the highest quality standards in accordance with EN ISO 9001. We go beyond the industry's standards to create intelligent solutions spanning a boundless scope of uses – from architecture through exhibition stand and shop fitting to mechatronic applications.

Transparent, strong, flexible – and always tailored to the customer's requirements.

We are fully focused on our customers' needs in all that we do. This approach gives rise to enjoyable, smooth-running partnerships.

We are transparent: We communicate in an open and honest manner. This way, we build trust and establish relationships on clear terms. We keep our promises and clearly state what is possible – and what is not.

We are strong: As a leading manufacturer of polycarbonate sheets, we are able to draw on broad-ranging expertise and practical know-how as well as decades of project experience to meet even the most demanding challenges.

We are flexible: Special requirements sometimes call for individual solutions. We champion innovation and embrace cutting edge technologies – this enables us to accommodate even the most unusual inquiries.



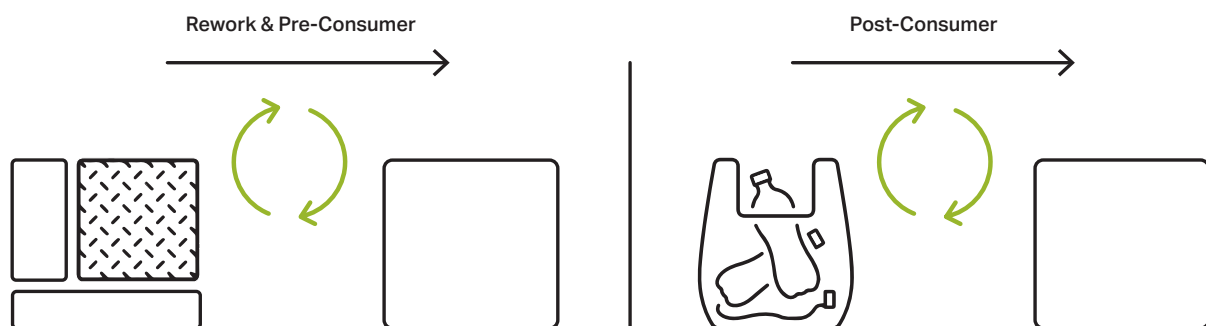
The circular economy as the key to sustainability

Climate change, endangered eco-systems, finite raw materials – our society faces a long list of challenges in the coming years. This calls on us to rethink how we arrive at the products that are part of our everyday lives.

A central concept here is the circular economy. In the circular economy there is no waste – a used sheet is converted into recycle and subsequently becomes a new sheet. Vegetable residues become bio-based plastics and are duly processed into products with a smaller ecological footprint. These products do not differ in any way from their conventionally manufactured counterparts. They look the same and are just as durable and robust. This makes them genuine alternatives in all contexts, with massive future potential.

An overview of the recycling materials and processes:

The recycling materials



Rework

Scrap occurs at various stages of the production process – as a result of side trimmings in the extrusion process, for example. This scrap can be processed into pellets for use in the production of new sheets. This minimises waste in the production process as a prime example of the circular economy in operation at source.

Pre-Consumer

Remnants or millings from processing carried out by our customers provide a further source of recycle. We invite our customers to join us in "Closing the Loop" here by means of our programme of the same name. This material flow is relatively clean and homogeneous, and lends itself to particularly efficient reuse.

Post-Consumer

Mixed plastic waste which is collected and processed within public recycling systems is also usable. This requires an extensive scope of sorting and cleaning in order to obtain material for high-quality recycle, however.

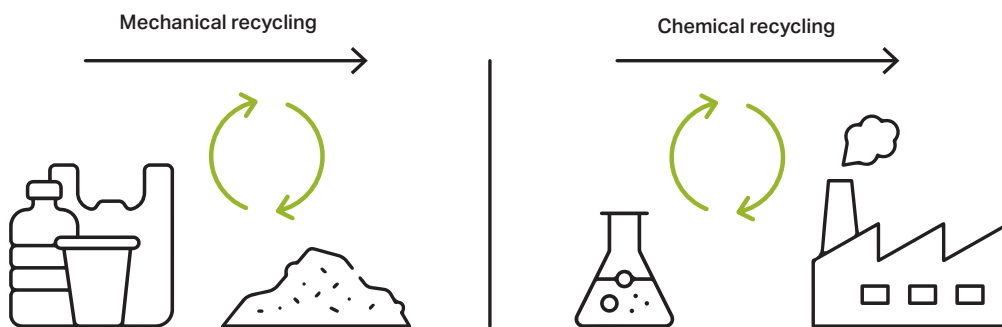


ISCC PLUS mass balancing

In practice, recycled and bio-based plastics are mixed with conventional materials in the manufacturing process. Mass balancing is a certified method of measuring the share of recycled or renewable plastics in the plastic product as a whole. The lesser the amount of fossil plastic in the mix, the more products can be sold as ISCC-certified. This facilitates companies' efforts to gradually increase the share of non-fossil raw materials.

To this end, all companies which are part of the value chain must have themselves certified by the ISCC. This results in end-to-end traceability, which boosts confidence in the system.

The recycling process



Mechanical recycling

In this process, segregated plastic parts are mechanically processed, i.e. sorted, cleaned, shredded. The recyclate can then be used as a raw material. It is remelted into granulate for subsequent use in the production of new plastic sheets. The mechanical process is the preferred solution from an economical and ecological point of view. It requires less energy and does not involve any toxic chemicals.

Chemical recycling

This process entails cleaving plastic waste by chemical means and synthesising the obtained components into new plastics. This changes the structure of the material at molecular level. A completely new material is produced. Consequently, chemical recycling requires high levels of energy.



The future begins with the ECORANGE

Our ECORANGE comprises four product groups which provide for a smaller ecological footprint through the use of recycled and renewable raw materials. The ECORANGE is available for our Exolon® brand polycarbonate sheets and our Vivak® and Axpert® polyester lines. These products deliver the same quality and properties as our conventional solutions. In this way, the ECORANGE offers greater sustainability without any compromises.

The ECORANGE types



ECO types

These sheets contain at least 40 % regrind from our own production operations. The internal recycling process means that the visual quality of the offered solid sheets is also identical to that of our standard materials.



ECOplus types

These solid and multiwall sheets have an attributed sustainable share of up to 89 % of the content, which is monitored via ISCC PLUS. The use of renewable rather than fossil raw materials provides for a particularly small CO₂ footprint.



rECO types

These solid sheets contain from 50 to almost 100 % pre-consumer materials which are recycled via a circular process.



rECOplus types

These circular solid sheets contain post-consumer recycled material. Recylate from products which have reached the end of their life cycles are used here according to the cradle-to-cradle principle.



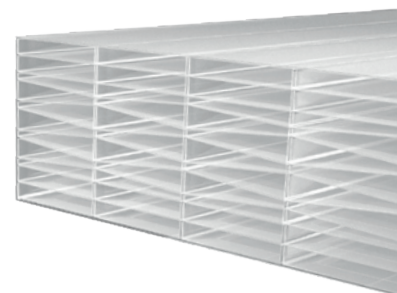
Multiwall sheets for particularly energy-efficient building

Energy-efficient buildings which require only low levels of energy are climate-friendly and economical into the bargain. Our polycarbonate multiwall sheets for roofs and facades can save energy on both industrial and private buildings.

The advantages of multiwall sheets:

- Effective heat insulation due to multilayer structure
- Good light permeability combined with low heat transmission
- Low mass per unit area for lighter supporting structures

The geometry of the Exolon® multi UV HX multiwall sheet ensures high thermal insulation (U_g value: up to $0.85 \text{ W/m}^2\text{K}$) combined with maximum light transmission. This results in energy savings of over 30 % in comparison to conventional standard sheets made of polycarbonate. This type is also available in an ECOplus version which has an attributed sustainable share of up to 89 % of the content, by using renewable raw materials.



Sound sustainability credentials – the Exolon Group



ISO 14001

Our facilities in Nera Montoro, Italy and Tielt, Belgium are certified according to ISO 14001 (Environmental Management System). Under this standard, the environmental impact of the production process is systematically recorded and analysed, and negative effects are continually reduced via specific measures.

ISCC PLUS

Our company is ISCC PLUS-certified. This certification enables recycled materials to be traced along the entire supply chain. Every company within the supply chain must be certified. This provides for fully verifiable materials cycles, ensuring maximum transparency and reliability.

What impact does my purchased product have on the environment?

We offer environmental product declarations for all polycarbonate and polyester sheets from our portfolio. These declarations provide information about the concrete effects of a product on the environment and are based on data which are obtained via life cycle assessment (LCA).



Sustainability as a perennial driving force

Sustainable thinking has been integral to our processes and strategic considerations for many years. Processes for the efficient use of recyclate are also firmly established, minimising the amount of waste which accrues at our production sites.

We also attach the highest priority to long service lives. Our plastic sheets are high-tech products which are particularly resistant to ageing and weathering. This means you can rest assured that they will not need to be replaced prematurely.

Closing the Loop – with the Exolon Group



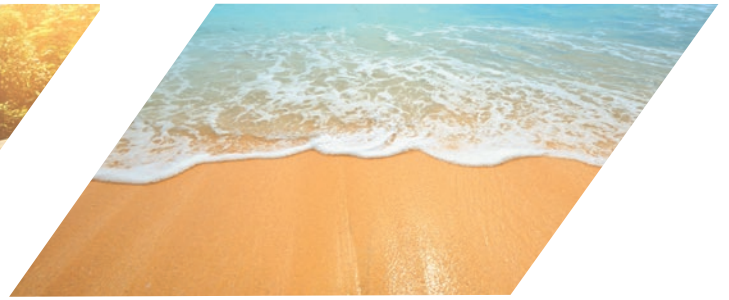
“Closing the Loop” is a programme which we have initiated to minimise waste. Many of our dealers and processors already salvage their scrap and waste, supplying these to recycling companies from which we obtain high-quality material. New partners are always welcome, as recyclate is unfortunately still a scarce resource today.

Sustainability doesn't end at our factory gates



Solar energy for our plant in Nera Montoro

At our Italian plant in Nera Montoro we use solar energy to reduce our products' ecological footprint. Part of the electricity required for production operations comes from an in-plant photovoltaic system.



Operation Clean Sweep®

This project is aimed at maintaining zero pellet loss during transportation, handling and processing. We have signed up to this pledge in Europe and undertaken corresponding measures. In this way we are actively helping to ensure that no plastics enter the immediate environment, our waters or the oceans from any of our processes.



LIFE CLIVUT

We support the EU-backed LIFE CLIVUT project in Perugia, Italy. The specific reforestation measures undertaken in this project aim to help combat global warming. The University of Perugia monitors the reforested areas and documents changes to the climate and the effects of the plants on the respective microclimates.



SP80 boat partnership

Sailing around the world at more than 150 km/h – on wind power alone. The innovative SP80 sailboat aims to demonstrate the potential harboured by renewable forms of energy such as the wind and sun. At the same time, the boat also highlights engineering progress and the opportunities offered by technical advances. We are supporting the team with highly robust, weather-resistant and lightweight polycarbonate sheets used for the cockpit.

Making a sustainable impact: **ECORANGE**

Dealer's address	
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