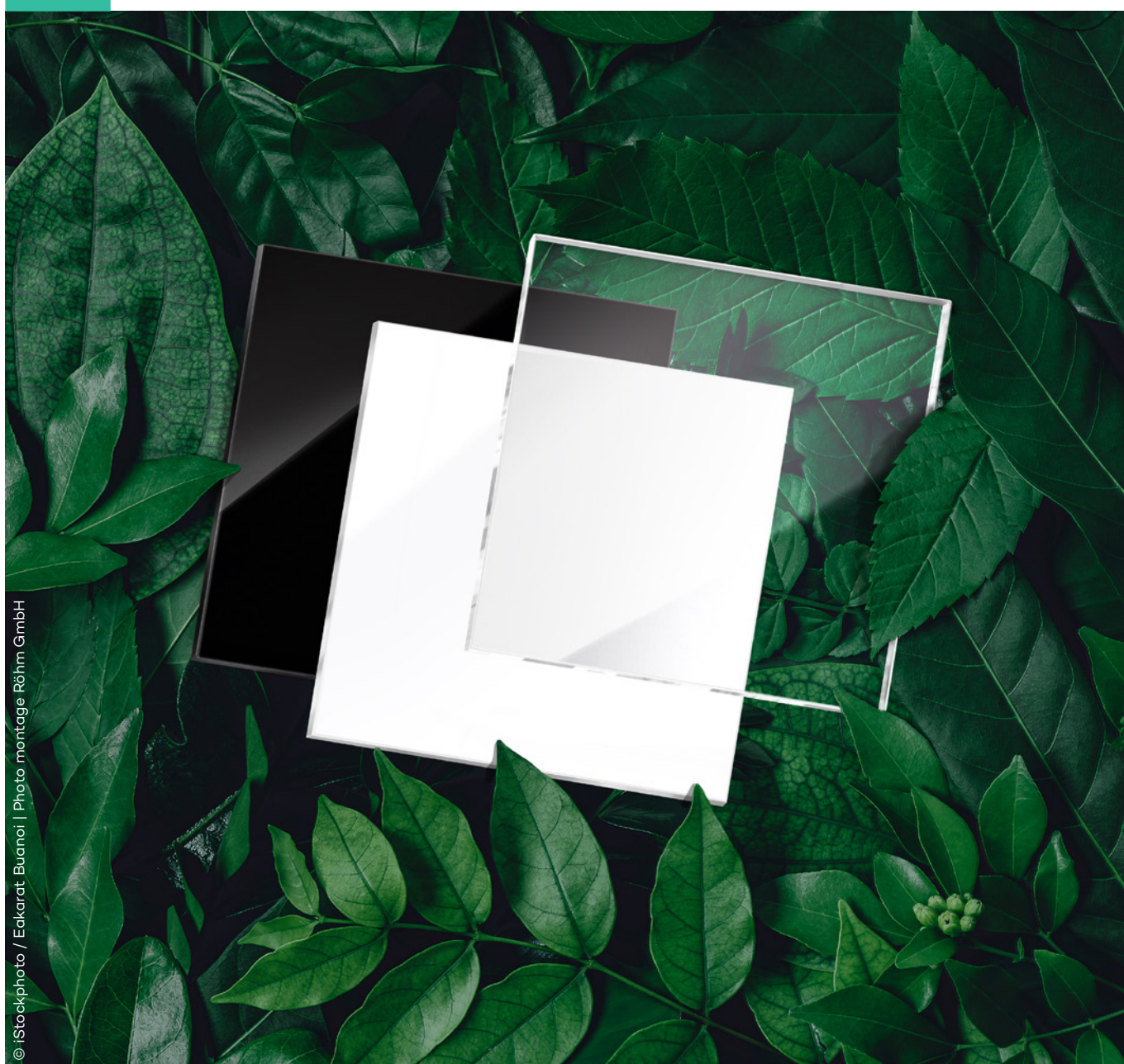


PLEXIGLAS®

PLEXIGLAS® *proTerra*
Beautiful. Sustainable. High quality.



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POLYVANTIS



PLEXIGLAS® *proTerra* – the sustainable solution for many industries

Handling resources sustainably is one of the most important tasks we face today. PLEXIGLAS®, the branded acrylic from POLYVANTIS, offers enormous potential here. After all, it has a property that distinguishes it from many other plastics: With the right recycling processes, PLEXIGLAS® products can be almost completely recycled in a comparable material quality. In short: PLEXIGLAS® becomes PLEXIGLAS® again.

One of the key properties of the brand that carry the *proTerra* name is their high proportion of recycled material. Our PLEXIGLAS® *proTerra* product family is no exception: Produced in a resource-saving way, the sheet material consists of up to 90 percent recycled acrylic glass and impresses with the proven brand quality of the original from POLYVANTIS. The environmentally friendly material is available as solid sheets, as well as as corrugated sheet.

What does the *proTerra* brand mean?

Sustainability is an integral part of POLYVANTIS GmbH's business strategy, including the development and market launch of new sustainable products and technologies. Products with the *proTerra* brand help reduce the carbon footprint during production or for the customer and save resources such as raw materials, energy or water.

Three good reasons for PLEXIGLAS® *proTerra*

1. PLEXIGLAS® *proTerra* looks great

PLEXIGLAS® *proTerra* sheets are of the same high quality as new PLEXIGLAS®. They look identical, and can be used and processed in exactly the same way. That has benefits for planners and designers:

- **Design freedom** for a wide range of uses
- **No additional workload** for planning with different materials
- Meets customer demand for **sustainable materials**

2. PLEXIGLAS® *proTerra* is sustainable

Thanks to their special chemical structure, PLEXIGLAS® sheets can be recycled and used to produce PLEXIGLAS® *proTerra* again and again. There is also no environmental impact from long transport distances, as every step of the process is conducted at our production sites in Germany – from manufacturing PLEXIGLAS® semi-finished

products to recycling production offcuts and producing PLEXIGLAS® *proTerra* sheets using a special coextrusion process. The environmental advantages are obvious:

- Contribution to **circular economy** of materials
- **Saving resources** needed to produce new PLEXIGLAS®
- **Less waste** ends up in landfill or thermal recycling

3. PLEXIGLAS® *proTerra* makes your ideas reality

Like all PLEXIGLAS® variants, PLEXIGLAS® *proTerra* can also be processed easily and precisely, combining extraordinary design with outstanding functionality:

- Easy to process
- Lighter than glass
- Stronger than glass
- Robust
- UV-resistant
- Easy to attach to other materials





PLEXIGLAS® *proTerra* variants

PLEXIGLAS® *proTerra* solid sheets

PLEXIGLAS® *proTerra* solid sheets consist of approx. 90 percent* recycled PLEXIGLAS®. They offer all the proven properties of acrylic glass from PLEXIGLAS®. The resource-saving material is available as translucent or opaque sheets in a range of colors and thicknesses.

PLEXIGLAS® *proTerra* solid sheets

PLEXIGLAS® *proTerra* solid sheets are highly versatile. Their high-quality look, lightness and ease of processing make them an inspiring material, for example for exhibition booth and store fixtures, for goods displays and exhibitions, and for both commercial and private interior design.

Transparent and colorless PLEXIGLAS® *proTerra*

With light transmission of 92 percent, transparent-colorless PLEXIGLAS® *proTerra* offers the same extraordinary transparency and vibrancy as new PLEXIGLAS® XT. Stronger and lighter than comparable glass geometries, it is ideal for shop counters, displays, display cases, transparent protective screens and much more.

Black and white PLEXIGLAS® *proTerra* solid sheets

Black and white PLEXIGLAS® *proTerra* solid sheets come in a choice of gloss or matte surfaces. They are an elegant material for prestigious interior design, signage or luminaires.

* 90 percent recycled content refers to the calculation for a 3 mm thick solid sheet of PLEXIGLAS® *proTerra*. The recycled content varies depending on the variant and the material thickness.



PLEXIGLAS® *proTerra* corrugated sheet

PLEXIGLAS® *proTerra* corrugated sheet is a highly translucent and permanently weather-resistant acrylic glass sheet that contains at least 51 percent recycled material. Its structure is similar to that of new PLEXIGLAS® corrugated sheet.

Like new PLEXIGLAS® sheets, it is ideal for terrace roofs, carports, porches and conservatories, since it is impact modified and therefore hail-proof. It also protects against excess harmful UV radiation. At the same time, the material is extremely resistant to weathering and UV radiation, and comes with a 30-year guarantee against yellowing.

■ PLEXIGLAS® *proTerra* solid sheets

■ PLEXIGLAS® *proTerra* corrugated sheet



Properties

The technical properties of PLEXIGLAS® *proTerra* solid sheets and corrugated sheet are comparable with those of new PLEXIGLAS® sheets. The guarantees for the various options are also comparable. That makes planning and application easier, as customers do not need to differentiate between sheets made from new PLEXIGLAS® and those made from recycled material.



You can find more information about the guarantee at: www.plexiglas.de



Range

We offer transparent and opaque PLEXIGLAS® *proTerra* solid sheets in a range of colors, surfaces and thicknesses. PLEXIGLAS® *proTerra* corrugated sheet is transparent and available in the same geometries as new sheets. Please see our online range for details.



You can find more information about the range at: www.plexiglas.de

How is PLEXIGLAS® *proTerra* made?

PLEXIGLAS® *proTerra* is made by directly recycling production waste from the production of PLEXIGLAS® sheets at POLYVANTIS as a high-quality raw material, as well as PLEXIGLAS® offcuts from sellers and processors.

Recycling loop PLEXIGLAS® *proTerra*

Production of PLEXIGLAS® *proTerra* with recyclate from the residues and waste of semi-finished PLEXIGLAS® products



Generation of residues and waste during

- Production
- Sales
- Processing of semi-finished PLEXIGLAS® products



- Collecting and sorting
- Regranulating the residues and waste of semi-finished PLEXIGLAS® products



PLEXIGLAS® *proTerra* solid sheets with two coextrusion layers

- 1 = Virgin PLEXIGLAS®
2 = Recycled PLEXIGLAS®
3 = Virgin PLEXIGLAS®

The PLEXIGLAS® *proTerra* solid sheet process

PLEXIGLAS® *proTerra* solid sheets are produced using the coextrusion process. The sheets are made from three layers, which are inseparably joined to one another. At their core is a thick layer of PLEXIGLAS® recycled material, embedded in two thin external covering layers made from new PLEXIGLAS®. In the colored versions, the internal layer of recycled material is given the same color as the cover layers.

POLYVANTIS GmbH is a leading company that uses this special, technically complex process to recycle acrylic glass offcuts into a material that is as good as new.

The PLEXIGLAS® *proTerra* corrugated sheet process

PLEXIGLAS® *proTerra* corrugated sheet is produced using the familiar extrusion process without coextrusion layers and consists of at least 51 percent recycled material.



Why PLEXIGLAS® is a building block for sustainability

Acrylic glass from the PLEXIGLAS® brand is in itself a material with various sustainable properties. It is not a mass plastic, but a high-quality material that enables very long lifespans in many applications and is then very easy to recycle. PLEXIGLAS® products are manufactured in an environmentally friendly way – and contain no harmful ingredients.

Environmentally compatible production

We protect the environment and resources in producing PLEXIGLAS®. For example, we recycle nearly all production waste as key materials.

Easily recyclable

PLEXIGLAS® products are generally pure, making them easy to recycle. Chemical recycling even enables new PLEXIGLAS® products to be produced in virtually the same quality – a process that is only possible with a limited number of plastics.

No mass plastic

PLEXIGLAS® is a high-performance material which is mainly used to manufacture high-quality and durable consumer goods. Unlike many other mass and packaging plastics, which often land in the garbage after a single use, PLEXIGLAS® therefore contributes to protecting the environment.

Nearly zero waste

According to an independent market analysis, PLEXIGLAS® accounts for an extremely low proportion of total plastic processing – significantly less than one percent in Germany. Plastic waste, especially from packaging, is considered one of the main sources of microplastic and marine litter.

Transparent and traceable

Institut Bauen und Umwelt e. V. (IBU) has published an environmental product declaration (EPD) for solid PLEXIGLAS® sheets, describing the environmental impact of the brand acrylic glass. The institute is a transparent, independent source, for example for architects and developers who want to compare different products during the planning phase. This information also serves as the basis for the sustainability assessment of buildings.

When it comes to environmental protection, PLEXIGLAS® semi-finished products are often part of the solution, not the problem.

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® = registered trademark

Semi-finished polymethyl methacrylate (PMMA) products from POLYVANTIS are sold on the European, Asian, African and Australian continents under the registered trademark PLEXIGLAS®, in the Americas under the registered trademark ACRYLITE®, both owned by Röhm GmbH, Darmstadt, or its affiliates.

Certified to DIN EN ISO 9001 (Quality) and DIN EN ISO 14001 (Environment)

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