



**TRANSPARENT
DESIGN**

Custom made
glass solutions





ABOUT

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Welcome to **TRANSPARENT DESIGN** a leading innovator and manufacturer of toughened glass products.

Our story began in 2005, driven by the desire to bring high-quality products and services to the Romanian glass market. To maintain high quality standards, we have invested heavily in new high-performance equipment from reputable suppliers, focusing not only on extending production capacity, but also on improving the quality of our glass products.

Over the last few years, the production space has expanded to 15,000 sqm. With a daily production capacity of 1,800 sqm processed glass per shift, we can meet any volume requirements while maintaining the quality and delivery times agreed.

Thanks to CNC technology, our glass products are manufactured with extreme precision and meet the highest visual and functionality standards.

We offer tailored solutions for both interior and exterior designs, including tempered and laminated glass, enameled glass, or ceramic-printed glass. All our products are CE certified.

We are proud of our commitment to SUSTAINABILITY and believe in our mission to preserve the environment for future generations!

INTERNATIONAL CERTIFICATIONS

The quality of our products has been certified since 2007 according to ISO 9001, and as of October 2023, we have also obtained ISO 14001 for our Environmental Management System and ISO 45001 for Occupational Health and Safety Management.

In May 2020, we received the BSI Kitemark™ certification for Safety Glass for Construction - BS EN 12150-1 for tempered glass, BS EN 14449 for laminated glass, and BS EN 14179-1 for heat-soaked glass.

We are also certified for the North American market as a supplier of Safety Glass for Construction - ANSI Z97.1, by the American National Standards Institute (ANSI) and the Safety Glazing Certification Council (SGCC).

In January 2025, Transparent Design was approved processor of the products in the Pilkington Suncool™ Pro T range, a range of toughenable off-line coated, that provide superior solar control and high thermal insulation when used as a component in Insulating Glass Units (IGU).

Other certifications include: ISO 614 - glass for the maritime industry, EN 1063 level BR7S - bullet-resistant glass, PYRAN S – SCHOTT certification for processing and securing fire-resistant glass (in progress), authorized processor PYROBEL (ITE), and KURARAY certification for the production of laminated products with Sentry film.

EXPERTISE IN THE FIELD

The company has qualified personnel with substantial experience in glass processing.

QUALITY SERVICES

The processing operations are carried out entirely in our factory, including cutting and CNC processing, tempering and laminating, enameling/painting glass, digital printing with ceramic ink, and UV bonding.





REPUTABLE SUPPLIERS

We work with high-quality raw materials from renowned manufacturers with extensive experience in the field: Saint Gobain, AGC Euroglas, Guardian, Tecglass, Pujol, Pilkington and Schott.

NEW PRODUCTION CAPABILITIES

We continue to make significant investments in cutting-edge technology and the expansion of our production capacities. Thus, starting spring 2025, we are putting into operation a series of new equipment for all of our production processes, enabling us to process large glass panels, up to 9000x3210 mm, a unique capability in Romania and found only in a few specialized companies in Europe.

Additionally, we are expanding our portfolio by entering the curved glass segment, both concave and convex, covering a diverse range of curving radii, thanks to computerized programming. The technology used perfectly meets the sophisticated aesthetic and quality requirements of modern architecture, making it an excellent choice for large-scale projects.

We estimate that by the summer of 2025, we will have all the equipment in place, ready to operate.

TOUGHENED GLASS

Glass toughening or tempering is a thermal process of heating the glass up to 700-740°C followed by fast and uniform cooling, through which the glass becomes up to 5 times harder, without losing its elasticity.

Safety: Compared to normal glass, toughened glass is breaking in small pieces, blunted harmless beads.

We specialize in manufacturing quality tempered glass utilizing cutting-edge technology. This is reflected in both the quality of the tempered glass (flatness and absence of blemishes) and productivity.

Equipment:

- 3 lines of glass tempering benefit from uniform and controlled heating technology, including full convection system, with great productivity in both flat and low-e glass
- Sheets glass processed: up to 6000X3300 mm and 3-19 mm thickness
- Two automated bending modules would be added to the existing tempering furnaces, and a line for tempering and bending (both convex and concave) glass with maximum dimensions of 9000x3210 mm, are about to be put into operation

Our tempering technology complies with European standards EN 12150-1 and EN 1863 for the HEAT SOAKED test (HST).

Large production capacities: up to 1300-1500 sqm/day

Applications: glass walls and doors, windows or curtain walls, laminated panels for railings, bathroom elements or glass furniture applications – especially for applications needing better resistance at mechanical and thermal shocks.





GLASS LAMINATION

Glass laminating is a hot bonding of two or more glass sheets of different thickness with an elastic foil placed between them.

Safety and resistance: in case of breaking, the glass fragments remain stuck through the inner foil, removing the personal injury risk.

We execute a diverse range of laminated glass with EVA, PVB or Sentry film, available in various thicknesses, with different laminating interlayers: transparent, frosted, colored. The glass can be clear or colored, as well as enameled or printed. We are KURARAY certified for manufacturing laminated products with Sentry film.

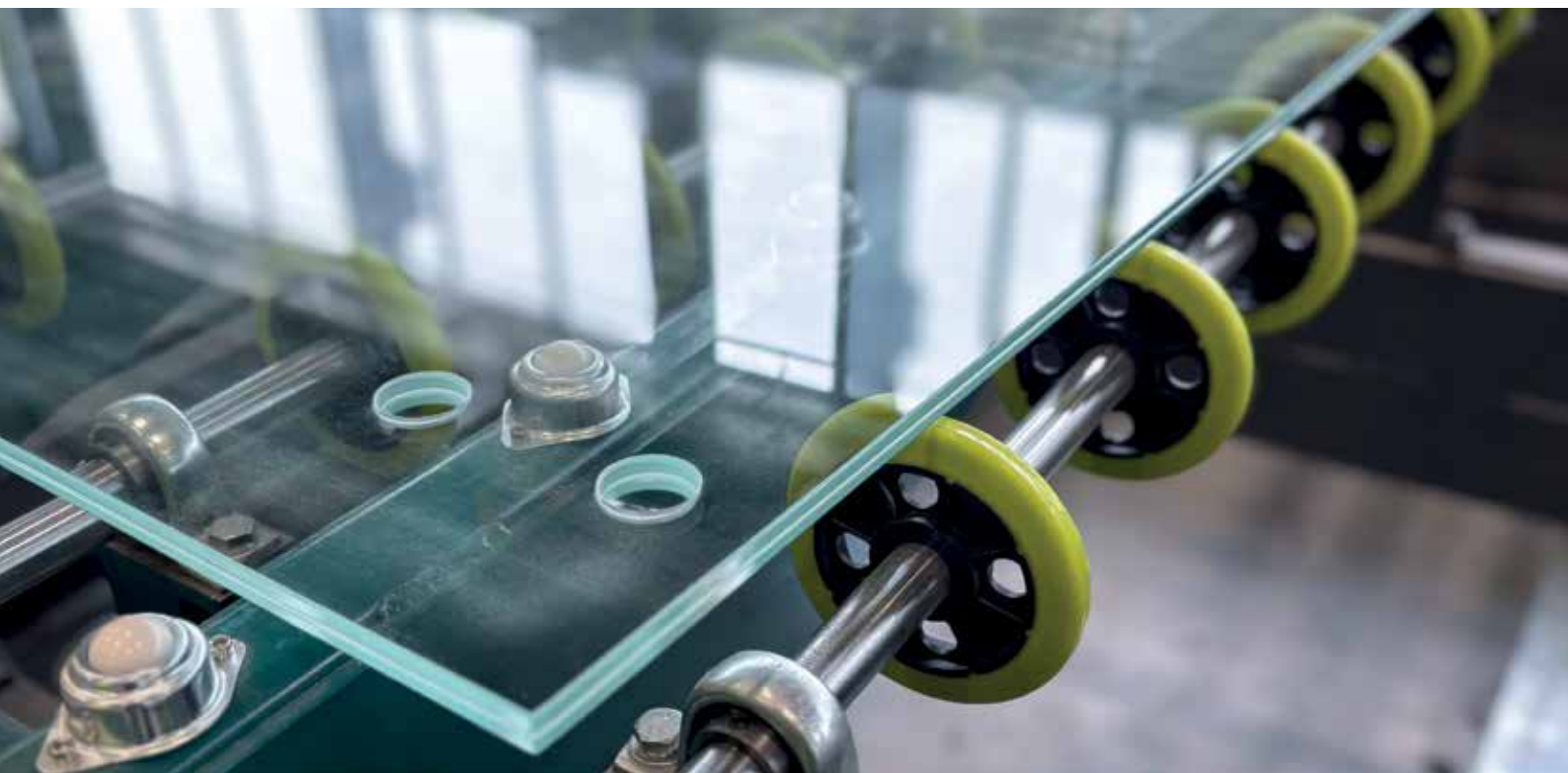
Equipment:

- PUJOL laminating furnace, uses EVA film, max. dimension 6000×3200 mm
- Fully automated PVB film laminating line, using also Sentry foil, up to 6000×3200 mm glass sheets
- Second autoclave for glass with maximum dimensions of 9000×3210 mm is about to be put into operation

Large production capacities: up to 600 sqm laminated glass/day

Applications: floors, roofs, stairs, glass railings; windows or glass walls of public and residential spaces, for protection against vandalism; bulletproof glass, marine industry.





CNC GLASS PROCESSING

CNC machining centers automatically perform a wide range of operations such as cutting, edge processing, drilling, notching, cutting outs and processing complex shapes.

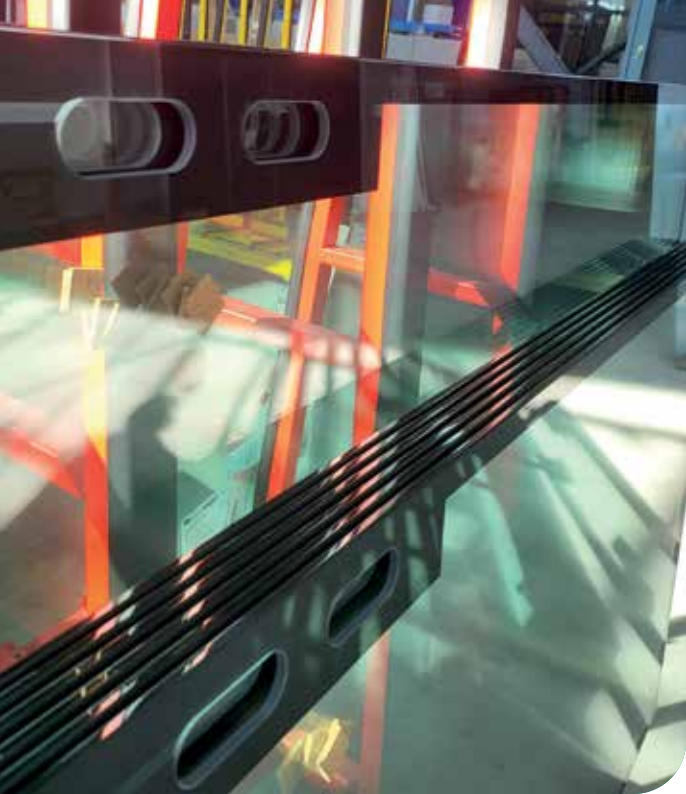
The quality of this process is very important to avoid glass breakage when tempering, especially large JUMBO panels or when fitting mechanical fasteners and hardware.

Equipment:

- BAVELLONI Horizontal CNC: accurate processing of glass panels with special shapes and cutouts, size 4500x2500 mm
- 3 state-of-the-art vertical CNCs: automatically process JUMBO panels with dimensions max. 5000x2800 mm, accurately performing all necessary operations: edge processing, drilling, cutting
- 3 CMS VERTEC: automatically and quickly drill holes and cut-outs
- A horizontal CNC for drilling and cutting, with max. 9000x3210 mm is about to be put into operation

Applications: glass for furniture, countertops, steps, balustrades, doors; with various shapes and complex cutouts that require special accuracy and cannot be made by hand or by ordinary machines.





GLASS ENAMELING

Colored glass can be **enameled or cold painted** in any RAL color.

The glass enameling process consists of uniform application of a special ceramic paint, followed immediately by the process of tempering the glass. This makes the paint coating much more durable and gives a uniform appearance.

Cold painting is using special water-based paint. The glass can be toughened and then painted. This glass is usually used for interior decoration.

Equipment:

- Professional ROLLMAC MULTIGLASS glass coating line consisting of a ROLLER for coating application together with a drying oven which contributes to the increase of productivity. The machine can apply both ceramic paints followed by glass toughening, as well as organic paints
- Glass enameling/painting area: 6000x2400 mm

Production capacities: 60 sqm colored glass/hour

Applications: glass cladding in public spaces (such as receptions, restaurants, shops) or residential spaces (bathrooms, work fronts, living rooms) and as a design element often used in furniture (countertops, shelves, glass doors, decorations).





CERAMIC PRINTING

Digital ceramic printing on glass is an advanced printing technology that uses ceramic inks to create high-resolution images, patterns, or textures directly onto glass surfaces, followed by tempering to fuse the ink into the surface permanently.

Benefits: high resistance to scratches, UV rays or temperature differences, custom designs (max resolution: 1440 dpi)

Equipment:

- Latest technology in the field VITRO JET FS8 digital printing machine, from TECGLASS SPAIN - leader in the field, with JUMBO size 6000×3000 mm
- VARIABLE DROP SIZE (VDS) printing heads, enabling to adapt the ink flow (7 levels) according to the high opacity level (typical for the templates) or by the high resolution of the image

Applications:

- Can be used for monolithic and laminated glass.
- Indoor design: Glass doors and walls; Panels and bespoke shower cabins; Glass wall coverings – bathroom cladding; Kitchen splash backs; Kitchen top tables or furniture.
- Outdoor: facades, glass railings.





EDGE POLISHING

Polishing involves processing the glass edges with state-of-the-art machinery that gives the glass panels a pleasing appearance, but also safe handling and functionality.

Type of glass polished: float glass 3-25 mm and laminated

Type of edges: matte, glossy or beveled appearance

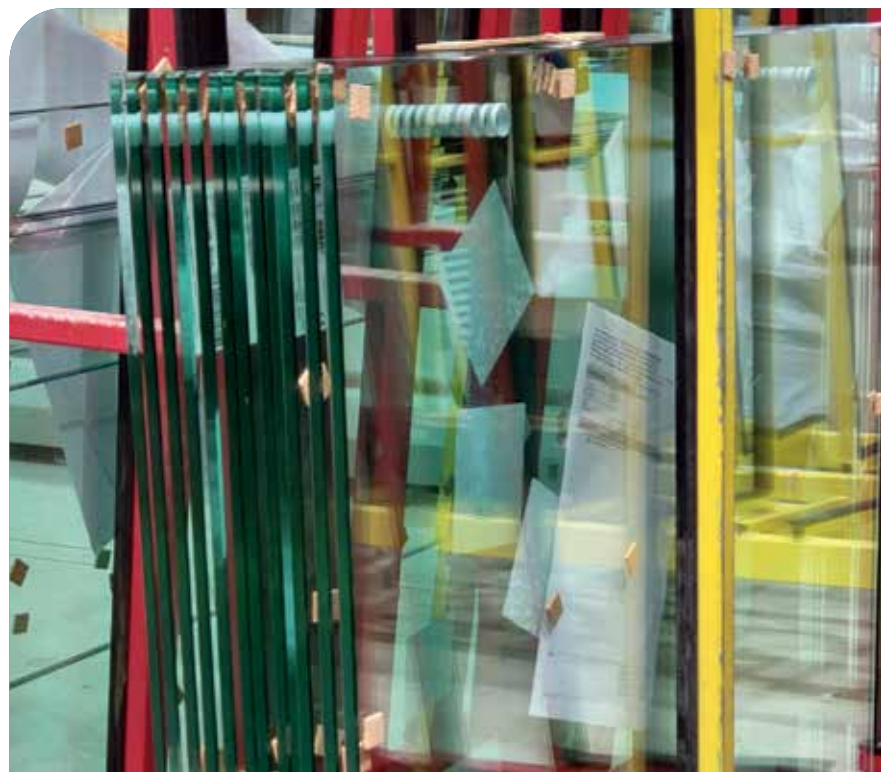
Type of surfaces that can be finished: straight and curved surfaces; Round corners (for table tops or glazes for safety reasons).

Equipment:

- 3 horizontal double edger lines – processing the edges of rectangular panels in a single pass
- 2 vertical processing machines, which can be adjusted to achieve a beveled edge of 0-45°
- A line for stress relief of glass edges: superficial finishing of the glass, in order to prepare it for the tempering operation; e.g. used for double glazing
- A new double-edger finishing line for glass sizes up to 9000×3210 mm is about to be put into operation

Advantages: high productivity for regular shapes and accuracy in meeting final specifications.





GLASS CUTTING

Glass cutting is the first step in processing glass sheets, customized according to the requirements received from clients.

Type of glass processed in our factory:

- Float clear and low iron glass (thickness: 4-25mm); also Timeless/anti-spots variant;
- Colored glass (grey, dark grey, bronze); thickness: 4-10 mm
- Mirorr – clear, grey, bronze (also temperable mirror Mirastar); thickness: 4-6 mm
- Sandblasted glass (Matelux and special type Matelux antislip); thickness: 6-10 mm
- Laminated glass

Equipment:

- 2 JUMBO BOTTERO 6000x3210 mm lines from Germany with automatic loading, for cutting both float and duplex glass, with minimal tolerances
- 3 new cutting lines will be put into operation starting spring 2025: two for monolithic and duplex glass, and one cutting line for glass up to 9000x3210 mm



FIRE RESISTANT GLASS

We are an authorized distributor of AGC fire-resistant glass PYROBEL (ITE) and our company holds the necessary technology for processing fireproof glass. Because we are keeping fire-resistant glass in stock, we can offer the best execution and delivery time.

Pyrobel and Pyrobelite: laminated glass with transparent intumescent interlayers capable of delivering fire protection for 30 to 180 minutes. They comply with Integrity and Low Radiation (EW) criteria as well as Integrity and Insulation (EI) criteria.

We are in process of certification by the German manufacturer Schott for processing and securing PYRAN S fire-resistant glass.

Applications:

- PYROBELITE: in internal single glazing, as well as in insulated glazing unit for outdoor applications (double or triple glazing). Thickness: 7.9-12.3 mm
- PYROBEL: internal and external applications - glass partitions and glass doors, fire resistant curtain walls-facades, windows. Thickness: 17.3-53 mm



BULLET PROOF GLASS

BR Bulletproof glass or bullet-resistant glass, also known as ballistic glass, is a type of strong, transparent material designed to withstand bullets or other high-velocity impacts.

It is made by layering multiple sheets of glass and polycarbonate or other plastic materials to absorb and dissipate the force of a bullet.

Due to its property to absorb impact, the glass layers slow down and spread the force of a bullet, preventing penetration.

Transparent Design bullet proof glass product:

- Comply with EN 1063 - European security glazing standard, that evaluates the protective strength of bullet-resistant glass.
- Certified for BR7, the highest level of security (out of 7 primary threat levels BR1 to BR7); Certification by Precision Ballistics Laboratories UK, a globally respected authority in ballistic, blast, and impact testing with over 20 years of experience.

Applications: Used in banks, military and security buildings.



UV

BONDING

UV bonding is mainly used to make glass furniture (small tables, showcases, desks) and to fix steps to stainless steel structures.

The ability to use UV bonding allows us to create various designs without the need for fastening elements, resulting in sturdy and elegant pieces that can be used in any residential or commercial space.

The bonding is done with a special lamp with ultraviolet rays using a transparent substance that provides the finished products with increased strength.



SUSTAINABILITY

Glass processing is an energy-intensive process and a major consumer of water, which can have a significant impact on the environment. This has led us to an increased interest in sustainability, beyond economic reasons such as optimizing production costs and thus the ability to offer competitively priced products.

SOLAR POWER PLANT

We have a solar plant, with over 3.500 solar panels installed on the roof of our factory, warehouses and on the ground with an installed capacity of 2.2 MWh. In this way, our solar power system generates up to 86% of the energy required for production. This help us decrease carbon emissions by more than 550 tons annually, just from production.

We are in the process of acquiring power saving batteries to sustain 100% of our energy consumption.

GLASS WASTE RECYCLING

We collect glass waste resulting from our processing operations, which is then reused by our main glass supplier, Saint Gobain, in production.

WATER TREATMENT AND FILTRATION

We reuse water in the production flow using an installation for water treatment and filtration, thus eliminating the issue of discharging non-compliant water into the sewer system.

The sludge generated from glass processing is collected from the used water and disposed of in collector bags and then transported to recycling centers. The capacity of the installation has been continually upgraded to match our production capacity. Currently, the installation has a filtration capacity of 120,000 l/h.

Due to this, we conserve over 2 million liters of water each year by using a continuous recirculation of the water needed in production.

We are proud of our commitment to sustainability and believe in our mission to preserve the environment for future generations!







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