



DRAENERT



MATERIAL
GLAS
GLASS

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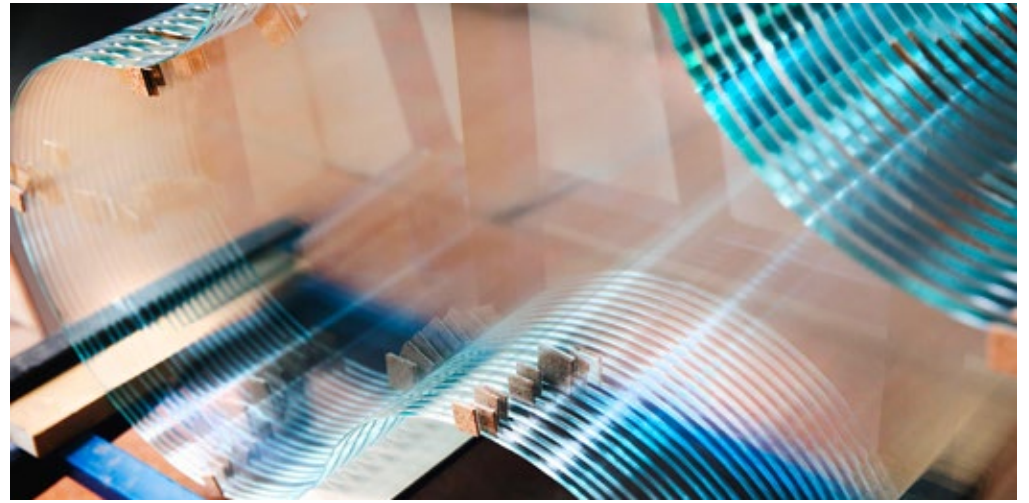


DRAENERT EXPRESSION OF PERSONALITY

TO OUR ESTEEMED CUSTOMERS,

We wish you much pleasure with your new glass table. You have purchased a piece of furniture, which has been manufactured in our workshops as far as possible in skilled work. We put a lot of care in an accurate treatment of the different materials.

Archaeological findings indicate that glass was first made in the Middle East, sometime in the 7000's B.C. This earliest man-made material has lost nothing from its fascination until today. Its precious look like natural gems, the brilliance and clarity as well as its translucency are its characteristics. Utilized in the furniture manufacture, it communicates lightness and noble reserve and permits the vista on decorative under- and backgrounds.





FLAT GLASS/FLOAT GLASS

For our tables we use flat or float glass. Worldwide it is produced only from a few large-scale enterprises. The production facilities are situated near the natural resources, especially the quartz sand as well as soda and limestone deposits (e.g. in Germany in the Upper Palatinate as well as in the Cologne Basin). The market is dominated by the main utilizations: in the building construction resp. façade design and renovations, in the window production, special glass for the car industry. The flat glass which is used in the furniture industry is only a vanishing small quantity (max. 5 % of the total output).

Float glass is an industrial product and is manufactured fully automatically in huge production lines (about 1.2 km long), at a melting temperature of about 1600° C. Similar to the steel worker's blast furnace, a glass furnace is designed to have a useful life of about 10-11 years in which tons of flat glass sheets roll off the conveyor belt around the clock, day in day out. They are picked, loaded and transported to the glass processing industry by road, rail and sea. There they are cut to size and the edges are worked. It is only at this stage that they arrive at our workshops for use in our production.

The high quality demands especially in the furniture industry treat a very special point of view, which is totally contrary to the glass processors. For the window industry, car industry and the façade design the main criteria is the transparency. The eyes want to look through the material and are focusing the object behind the glass pane. For the furniture industry this is normally contrary. In this application the pane is, as a part of the furniture, the object of the view itself. Therefore every little irregularity will be detected, which sometimes becomes a problem.

The quality requirements in respect to flexural strength (brittleness, breaking strength), translucence (blisters, inclusions, clouding), surface quality (scratches, streaks) and glass colour (green cast) are fixed in regulations for DIN and European Standards. Apart from the technical feasibility, the tolerances are mainly influenced by the needs of the key customers. Basically, it is impossible to manufacture glass completely free of blisters, inclusions or clouding. Limits are set by the consistency of the natural material, which is never perfectly pure nor perfectly constant, and by the highly complex smelting process.



Defects which are outside of the tolerances have been identified and marked on the production line by photo-laser sensors so that they can be isolated and rejected during the cutting process. Inside the tolerance are fine, hairline scratches, small enclosed blisters, fine clouding or inclusions, as long as their effect is not too disturbing in **normal light from a distance of 1.5 m.**

GLASS TYPES

STANDARD-FLOAT GLASS

The slight greenish light refraction of this type of glass is caused by chemical additives (diff. metallic oxides) in the glass flow. Its intensity increases in proportion to the thickness of the glass, but it can also change over longer periods during the production. Glass produced in different batches can have quite a different coloring.

WHITE GLASS - OPTI-WHITE

The white glass DRAENERT differs in the clarity, because the greenish light refraction of the standard float glass has disappeared almost completely. The glass edges still show in proportion to the glass thickness and pane size a blue-green coloring, but which is significantly lighter as the fir green edge of normal float glass. The edge color is not visible on the very small sample panes in the sample case. The proof for standard float glass or white glass shows the view through the glass on a white sheet of paper. With standard float glass the sheet looks light green, with white glass the white sheet remains white.

SATINATED GLASS

The matt optics, which will be achieved on standard float glass or white glass, results from a special etching method, which abrades the glass surface with gossamer delicacy and therefore becomes opaque. This etched surface will only be applied as used side, as the metal parts cannot be glued on the etched side. And about fingerprints must not be worried.

BACK LACQUERED GLASS

With special glass lacquers, which will be applied on the underside of the glass pane, we combine the brilliance and clarity of glass with almost every required color shade. For the color authenticity we apply in this product line only white glass or satinated white glass as base material.

In addition, a special adhesive technology enables, in connection with the glass lacquers, a continuous optics of the glass surface without interruption by glued-on metal support parts. Therefore they remain invisible.

COLORED GLASS

For some models of our collection we use colored glass, a clear, solid by metallic oxides colored float glass. You can find two shades, grey and brown, but this glass panes will not be produced in every required thickness and at every time. Therefore longer delivery times must be accepted.

BENT GLASS

For tables of bent glass, cut glass panes will be reheated to 800°C (1472 F), until they will get bent over special negative molds. Afterwards they have to cool down very slowly to achieve this special shape. These glasses, which have been produced with great technical effort, have special features, which differ significantly from a regular float glass pane. Ripples, streaks, rainbow-colored mirror reflexes, punctiform recesses, small bubbles or inclusions as well as fine scratches belong to the appearance of these glasses, especially in the bending areas. Also the edges may show slight irregularities. Caused by the bending process the dimensions accuracy of height and width as well as the angles of the sides are influenced. These special features belong to this production technology and must be understood and accepted. Also bent white glass panes can be back-lacquered in all colors.

TEMPERED SINGLE PANE GLASS - (ESG - SAFETY GLASS)

Single-pane tempered glass is a special glass finishing procedure of standard float glass or white glass and will be utilized on most of our dining tables. It is characterized by an extreme impact and bending strength. It is regular float glass which has been tempered by an additional thermic procedure. Resulting from this, the glass pane will break into small grains which reduce the risk of injury significantly. Big, sharp glass shards may not occur. Disadvantages of this treatment are visible optical inferences like ripples, streaks, rainbow-colored mirror reflexes, punctiform recesses, small bubbles or inclusions as well as fine scratches belong to the appearance of these glasses. The panes are not always totally plain and also the edges may show slight irregularities. Tables with composed glass tops may show slight differences at the glass seams. This may technically not be avoided from the part of the glass industry. As per our point of view these optical impairments are acceptable in regard to the greater safety afforded.

CARE INSTRUCTIONS

Concerning the care of float glass not so much remains to be said. It is a user-friendly but also sensible product which is resistant against almost all normal household acids and alkalines and can be cleaned with conventional non-abrasive cleaning agents. As a part of our range of care products, DRAENERT offers a special Citrus glass cleaning agent. Matt rings on the glass surface come mostly from lime scales from the water and may easily be removed with non-abrasive lime scale cleaners. But glass can easily be scratched due to mechanical impact or may break due to inappropriate use.

CARE PRODUCTS

Within the range of our care products, DRAENERT also offers a care and cleaning set for high-quality glass surfaces. **For the order please contact us under www.draenert.com**

LIABILITY EXCLUSION FOR GLASS TABLES

For all our glass dining tables with glass top and glass thickness below 19 mm, we use single-pane safety glass (ESG), a tempered float glass, additionally hardened and pretensioned with a special thermic finishing procedure. Its advantage is its finishing quality and its safety. Big, sharp glass shards may not occur; the glass pane will break into small grains like car glass panes.

A glass pane always breaks by violation of its surface, especially by damage of its edge. From here a cracking may occur and in consequence, also with quite a time delay, the table top may break. Please pay attention to a sensitive utilization of the glass top.

In this context please note that faulty panels would not endure the transportation from the factory to the final customer, they would inevitably break because of the vibrations during the transport. We ask for your comprehension, that we may not be liable for glass breakage after putting the table into use.

A FEW BASIC PRINCIPLES IN HANDLING OF GLASS FURNITURE

- 1 | Glass tables have a similar resilience as comparable tables of a different construction but should never be charged with more weight as for regular use.
- 2 | Never use glass tables as a seat.
- 3 | Glass tables are not a children's toy.
- 4 | Glass should never be exposed to extreme temperature fluctuations (e.g. a hot pot or a deep-frozen bottle). This may provoke a spontaneous break. Please always use coasters.
- 5 | Be careful with ceramics, porcelain or diamond rings, which may provoke scratches due to. Please use coasters.
- 6 | Damaged edges may provoke - also time-delayed - a break of the glass pane.
- 7 | As the bottom glass plates may easily be scratched on stone or ceramic floors, PVC slide pads should be used (available on request).

METAL SURFACES FOR TABLE BASES

In a large number of its models, DRAENERT uses components made of steel with an electro-plated finish or of stainless steel as a design element. Complex table bases, leg tubes, high-precision fitted pieces for mechanically movable tables, table skid frames or chair frames obtain their glossy metallic look through highly sophisticated electroplating processes or by polishing or matting of stainless steel.

Before the ultra-fine finishing process each base material must be prepared by diverse grinding and polishing processes. Due to the individual form of each piece, any mechanization is only possible to a certain extent and traditional workmanship is indispensable.

POLISHED CHROME

Polished chrome is surely the classic metal surface for furniture. The reflecting, cold metallic gloss is known for its hardness and scratch resistance, and gives each structural steel part an optimum protection against corrosion for interior use. This surface is not suitable for

outside use (patio or garden) or for use in a tropical climate.

Care instruction: The polished chrome surface is resistant against regular household acids and alkalines, and can easily be cleaned with a damp cloth. From time to time care with a conventional chrome polish is recommendable.

MATT CHROME AND SATINATED NICKEL

Matt chrome and satinated nickel have matt-finished, silvery surfaces. In regard of their production method these surfaces are based on the glossy variants. After the electroplating, these pieces will be matted by manual brushing. With this procedure the matt chrome surface attains a much more delicate matt sheen due to the thickness of the coating. The nickel varieties are brushed more intensively and they match the look of pure brushed stainless steel.

Care instruction: Matt surfaces are roughened surfaces and are thus more vulnerable to liquids. Acids may cause irreparable damage, in case they are not removed immediately. But with a Scotch-Britt such damages may be reworked a bit by brushing the surface in the grinding direction.

STAINLESS STEEL (V2A)

Some models of our collection are made from stainless steel tube or stainless steel sheets. A surface protection to prevent from corrosion is not necessary. The stainless steel is offered in a matt brushed version.

For the table pedestals we use brushed stainless steel sheets.

Care instruction: A regular care with DRAENERT metal care is recommended.

COATED AND LACQUERED METAL SURFACES

The colored metal parts of our table models will be coated or lacquered. For some of our table models the according metal support parts for the glass bonding are made of black eloxated aluminum, as well with a black bonding surface. For all other colors the metal support may not be lacquered, because the glue would attach the lacquer. These parts must keep one of the galvanic surfaces. All coated or lacquered surfaces are much more sensitive to damages as the galvanic surfaces.

Care instruction: Coated or lacquered surfaces may not be treated with solvents or dilutions. Only clean these surfaces with non-abrasive cleaning agents.

CARE PRODUCTS

In our range for care products DRAENERT offers a cleaning and care set for stainless steel and metal surfaces. **For the order please contact us under www.draenert.com**

