THE ART OF MAKING GLASS

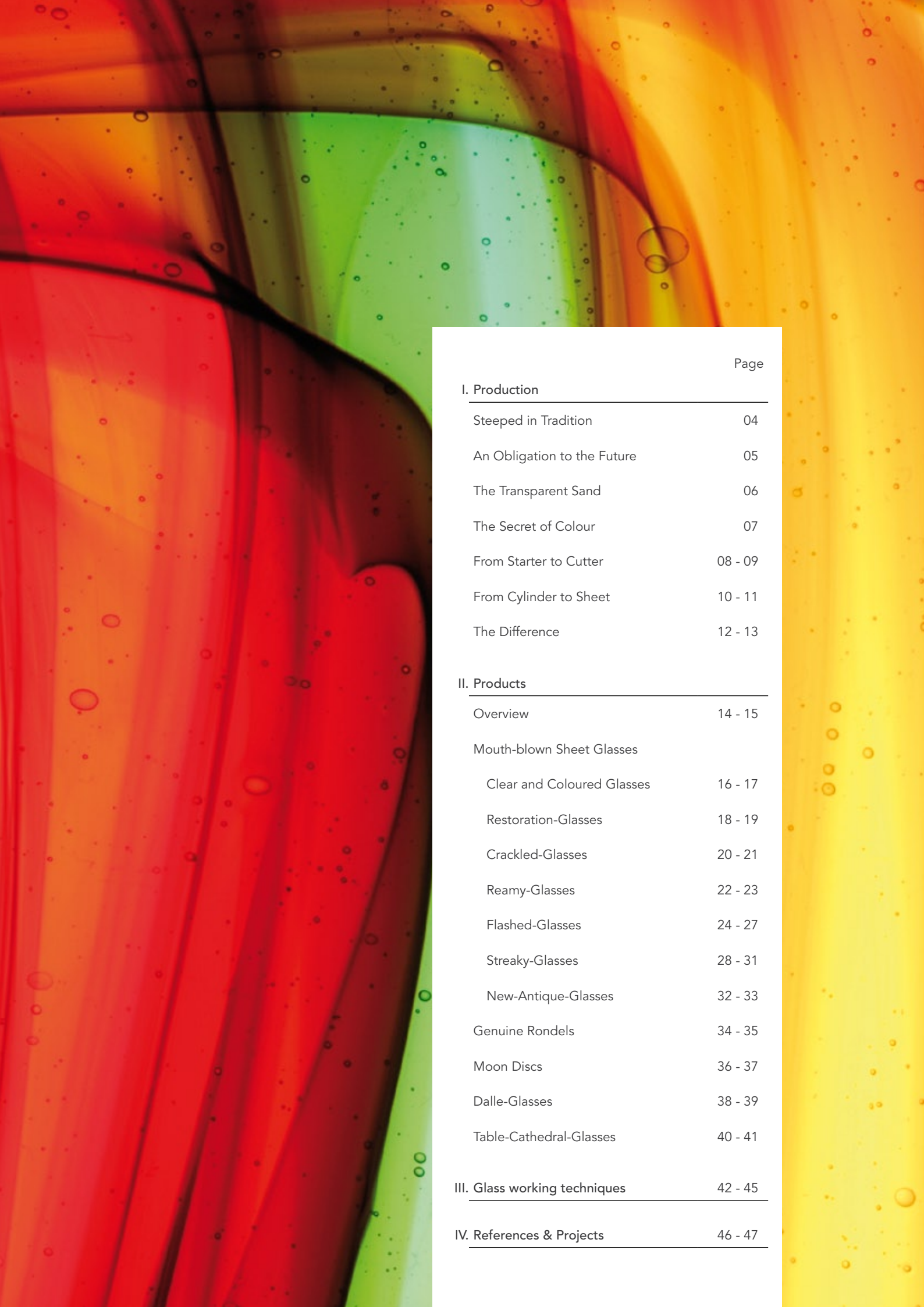
Glashütte Lamberts

LambertsGlas®

COLOURED GLASS REFINES LIGHT.

When first catching sight of Lamberts mouth-blown coloured glasses you realize – apart from their apparent elegance and brilliance – that they have an additional quality, that is to say, a

"soul".



STEEPED IN TRADITION.

The result of unsurpassed craftsmanship, mouth-blown LambertsGlas® has a trademark of its own. In short: The body of the glass, the special texture and transparency as well as the glowing colours are of an individuality which gives them an unmistakable identity.

LambertsGlas® can only be produced through the art of glassblowing. Glashütte Lamberts continues to adhere to these very old and deep-rooted traditions.

Tools and methods of production have remained basically the same through the centuries. The quality of our products, however, has evolved into the high standards we hold today for our entire range of colours and textures.

Many of our products have changed through the ages. But some remain as they were, as change might deprive them of their "soul".

Glass as a material has been in existence for **7000 years**. For some **2000 years** man has possessed the knowledge and skill to blow glass. Window glass has been produced for **800 years**. Glashütte Lamberts began production of mouth-blown sheet glass more than **75 years** ago.

AN OBLIGATION TO THE FUTURE.

Mouth-blown LambertsGlas®
A Product with Respect for the Environment.

Glashütte Lamberts Waldsassen is a company with a strong commitment to eco-friendly glass production. The factory invests in advanced green manufacturing technologies and carefully selects environmentally conscious business partners.

Now in its third generation, the Glashütte Lamberts is a family owned company with genuine commitment to sustainable products. Lamberts has been practicing their own strict environmental policies since the 1970's, years before Germany established industry-wide regulations for environmental protection. It is one of the first glass factories to reduce air pollution with the installation of sophisticated air filtration equipment. Lamberts' flue-gas filters capture and eliminate heavy metal emissions produced during the glass melting process. The main raw materials (sand, soda, and limestone) are sourced from regional companies to minimize long transport distances and to reduce the final product's carbon footprint. Their most recent efforts improved the firing technology of the furnaces to further increase efficiency and conserve energy.

Lamberts continues its commitment to sustainable development with the active research and implementation of new environmentally sensitive processes and technologies. Future developments include increased conservation of fresh water through water recirculation and treatment within the plant, as well as a rooftop array of photovoltaic cells to supplement the factory's electrical requirements.

LambertsGlas® is much more than glass and product innovation.

It is a product dedicated to environmentally sensitive, eco-friendly life.

LambertsGlas®

THE TRANSPARENT SAND.

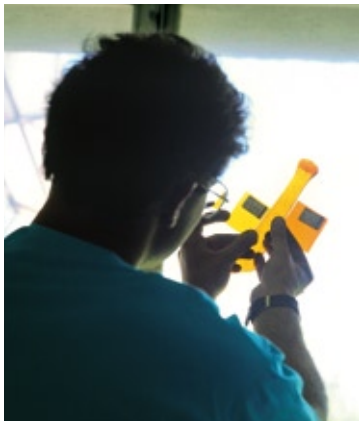
Weighing the raw materials is the first step. Each type of glass is mixed individually. The daily output amounts to 26 different mixtures.

Melted at high temperatures, quartz sand, sodium carbonate and limestone become completely clear after cooling. A batch having been entirely opaque before, changes into one of the most fascinating materials: **glass**.

After the mixing process the batch is loaded into ceramic pots to be melted in special ovens. The deciding factors of the mix are the structure desired, the colour and the style.

THE SECRET OF COLOUR.

The melting masters are familiar with all the formulas indispensable for the production process. They adjust the colours of the molten glass as required to guarantee the shade of colour desired.



Samples are taken to confirm their tone matches in colour to the shade required. Such conformity is the prerequisite of any further processing.

Through the addition of iron, copper, nickel and other metal alloys as well as silver and gold Glashütte Lamberts has created an almost unlimited palette of colours. Their consistency changes through nuances in tone or shade. No other material has a more varied range of possibilities.

FROM STARTER TO CUTTER.

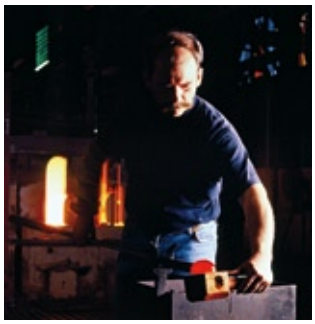
The glass undergoes a refining process overnight and is prepared for the most important and most difficult stage of processing: the blowing of glass. 01

Each of the ovens is operated by four teams. A team is comprised of the starter, the assistant and the master.

The blowpipe is dipped into the pot by the starter and kept constantly rotating thus gathering the molten glass onto the end of the pipe. He repeats this procedure several times until the quantity required has been reached. By means of spinning and simultaneous blowing the starter works the "gather" through the different wooden molds to give it the appropriate shape. 02 + 03
The gather of molten glass spinning in the mold is slightly inflated by the starter who finally passes the blowpipe on to the master. 04
While rotating the balloon in the steel trough the master continues to blow it to full size thus giving it the desired shape and structure. 05
This requires excellent craftsmanship, physical strength and, above all, a well-developed sensitivity. It is the only way to achieve the unmistakeable individuality of mouth-blown sheet glass.

01

02



03

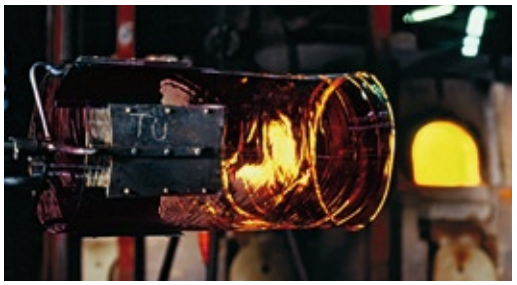
04

05

The red-hot balloon is cut open at the front end (06) and dilated by means of the scissors and "fork" (07). The same procedure takes place at the other end after heating up the balloon again (06). In this way a well-proportioned glass-cylinder comes into existence.
The cylinder is placed in an annealing oven to remove any inherent tensions.


06

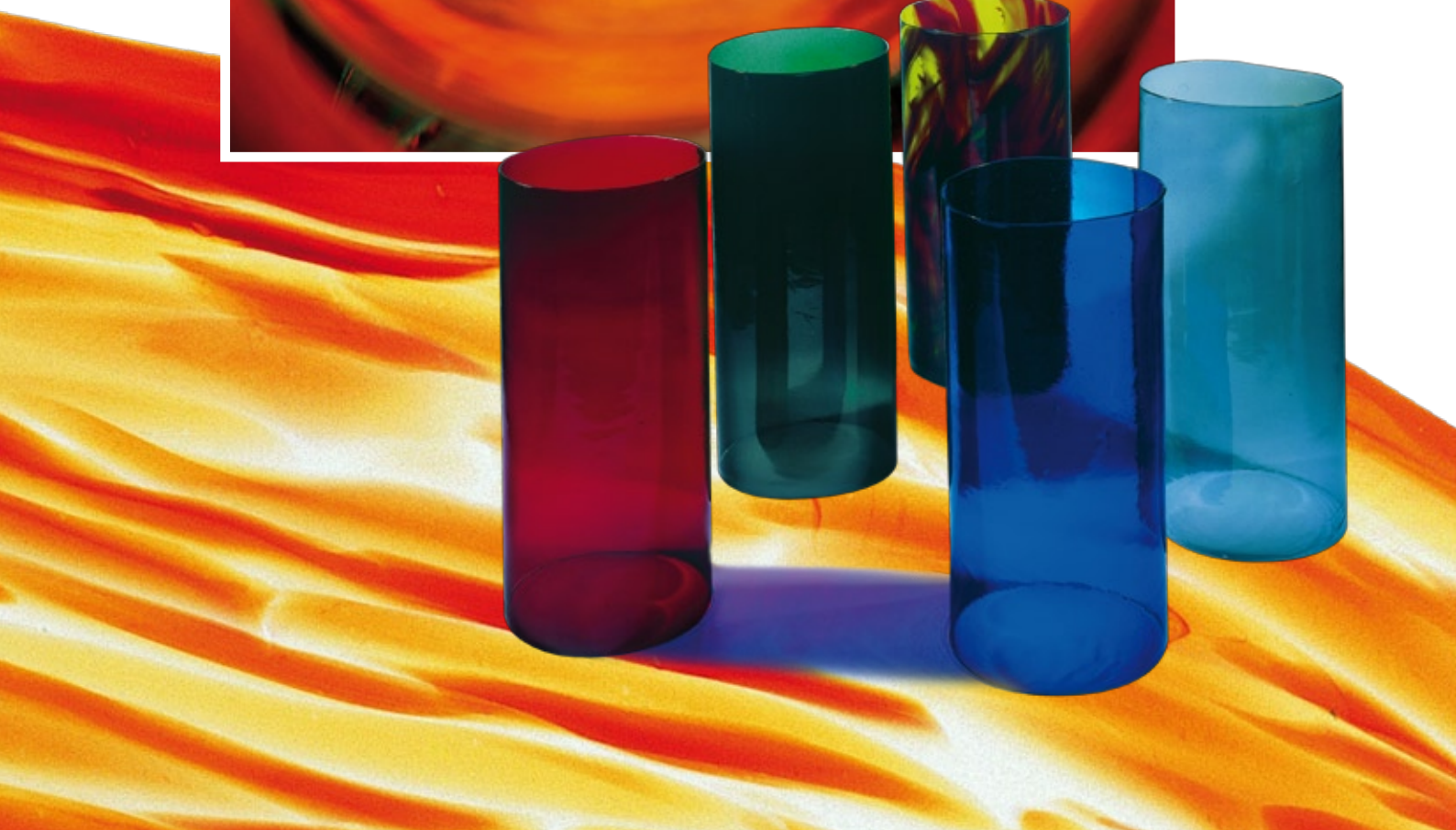

07


08


09

At the end of this most important part of the production process, the finished cylinder must undergo quality control. Only then does the cutter score the cylinder lengthwise. 09

FROM CYLINDER TO SHEET.



Now the scored glass cylinder is heated again, layed open and flattened.

The wave-like sheet is ironed out by means of a special wooden tool.

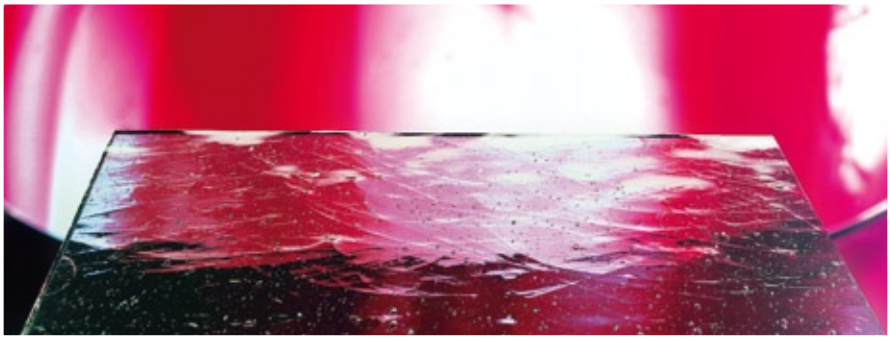
Photo: COM PR + Marketing Fürstenzell / Scholz

The flattened glass sheet travels on a continuous belt through a second long annealing oven thus losing any remaining inherent tension. The result is a beautiful cutting glass.

After this annealing procedure each and every sheet must pass another quality inspection. Now the sheet is finished.

At this point, the glass sheet has been passed through many hands. With practiced skills, every member of our team did his or her part to make the production of this glass a success. A treasure has been created.

Machine-made glasses lack brilliance, body, structure and diversity. The characteristic features of mouth-blown LambertsGlas® are individuality and the touch of the craftsman.



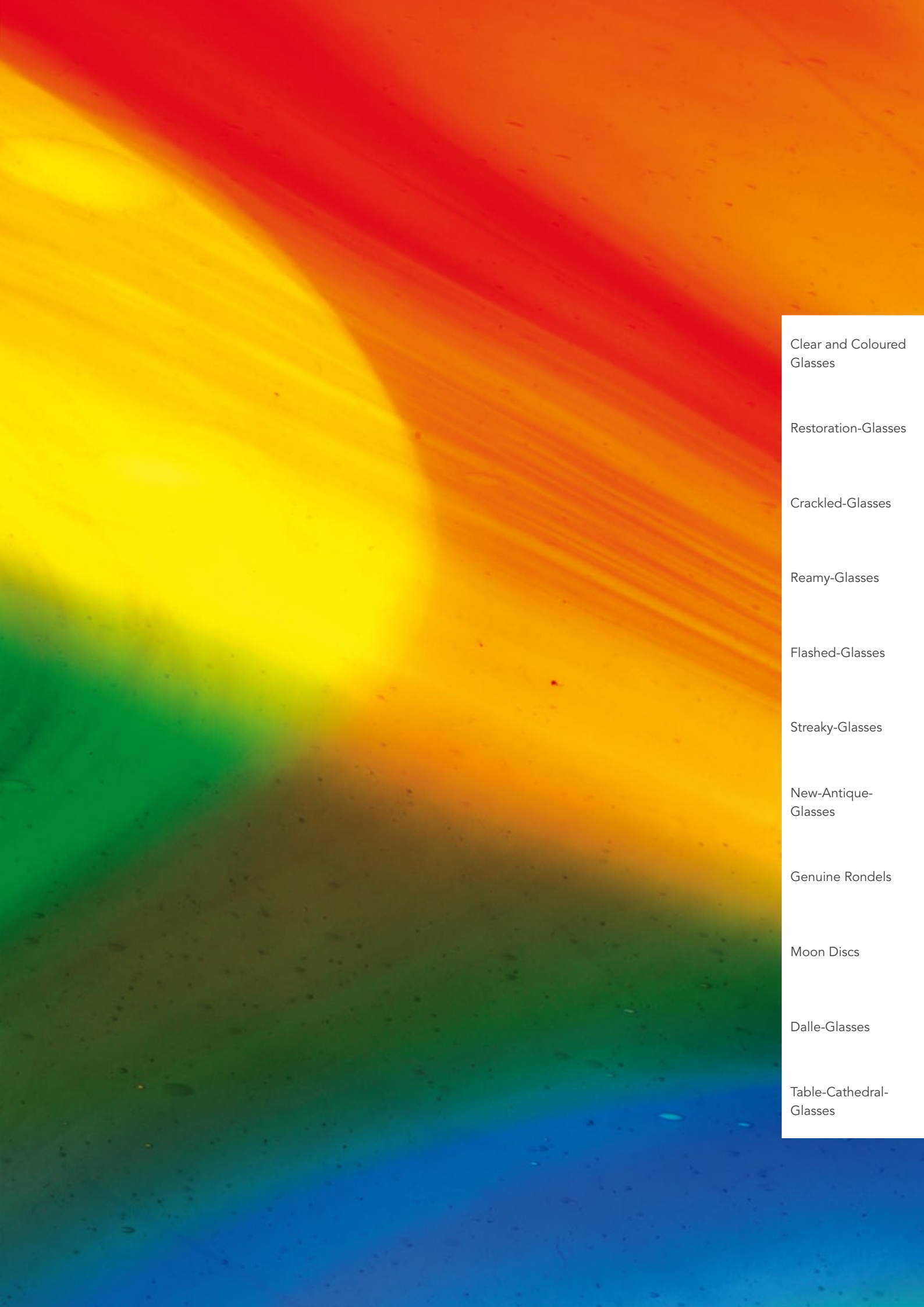
THE DIFFERENCE.

LambertsGlas®

Characteristics of genuine mouth-blown LambertsGlas®:

- **Surface structure:** Distinct, yet unobtrusive.
- **Seediness:** Many small bubbles spread in an orderly and circular way.
- **Brilliance:** Optimal light refraction creates a sheet of glass that begins to shine when exposed to light.
- **Transparency and body:** Fine glass can have a subtle effect, yet retain its independent character.
- **Cutting properties:** The quality of LambertsGlas® is highly appreciated by those who work with this precious material.
- **Diversity:** The almost unlimited variety of glasses leaves nothing to be desired.
- **Service:** Fulfilling the individual wishes of the customer is a matter of course for our firm and a distinguishing mark of Glashütte Lamberts.

OVERVIEW.



Clear and Coloured Glasses

Restoration-Glasses

Crackled-Glasses

Reamy-Glasses

Flashed-Glasses

Streaky-Glasses

New-Antique-Glasses

Genuine Rondels

Moon Discs

Dalle-Glasses

Table-Cathedral-Glasses

Clear and Coloured Glasses.

The Original Lamberts-Glasses are mouth-blown and set a shining example for the successful continuation of time-honoured traditional glassblowing.
Brilliance, structure and diversity of the high quality sheet glass can only be achieved through the practice of this way of production.
The high quality of these glasses is guaranteed by the technical know-how and craftsmanship Glashütte Lamberts has gathered over the decades.

Characteristic features of the mouth-blown Clear and Coloured Glasses are the distinct, yet unobtrusive surface structure and the bubbles in round or oval shape. When exposed to light the outstanding transparency, brilliance and body of these mouth-blown sheet glasses are displayed.

Fields of Application

Practically speaking, there is no alternative of equal value in the fields of art glass, church windows and windows designed by craftsmen for private or public buildings. It is for this reason that Original mouth-blown Lamberts-Glasses are used to adorn the windows of many buildings around the globe. Their magnificent play of colours can be found in airports, banks, churches, synagogues, mosques, administrative and government buildings as well as in private homes.
The exquisite glass of Glashütte Lamberts satisfies even the customers' most ambitious demands.
The diversity of colours, shades and textures leave nothing to be desired.

Technique and Colours

Individual sheets measure approx. 60x90 cm and are approx. 3 mm thick. All the sheets are delivered with their edges still intact. Small variations in the dimensions occur due to the handmade production of the individual sheets. These mouth-blown glasses can be made in any colour imaginable. More than 5000 colour combinations are available at Glashütte Lamberts – by far a larger selection than any other glassmaker can offer. Due to their excellent handling characteristics, the Original Lamberts-Glasses are truly predestined for complex and ambitious applications. A box containing 200 selected colours helps our customers to choose the appropriate glass. It is also our policy to individually produce custom glass according to our clients' ideas and patterns.

The typical structure (Hobel) is easily discernible.

normal seedy

medium seedy

heavy seedy

The bubbles are the second important characteristic. All variations, from no bubbles to foamy, can be produced. This creates almost infinite combinations of structure and colour possibilities.

CLEAR AND COLOURED GLASSES.

Restoration-Glasses - mouth-blown window glass.

Original Lamberts-Restoration-Glasses are specially intended for the renovation of old buildings and homes, and the preservation of historic edifices and monuments as well as antique furniture restoration.
Until the 1920s almost all window glass was blown.
Glashütte Lamberts has retained the production methods of mouth-blown glass in order to guarantee the authenticity of these historically accurate window glasses. Mouth-blown Original Lamberts-Restoration-Glass is therefore part and parcel of any restoration work aimed at meeting the demands of this classical way of glazing. As a matter of fact, the Original Lamberts-Restoration-Glass can also be incorporated into modern insulated window units, thus satisfying the most up-to-date heat and sound protection provisions.

The Production

Restoration-Glass "full" is produced in the same manner as the Clear and Coloured Glasses in the traditional mouth-blown method, whereas the Restoration-Glass "light" is swung over a deep pit during the blowing process. Homogeneous, evenly structured sheet glasses can only be created with the glassblower steadily and smoothly rotating the large red-hot balloon. He must have a good deal of experience, physical strength and craftsmanship.

Technique and Colours

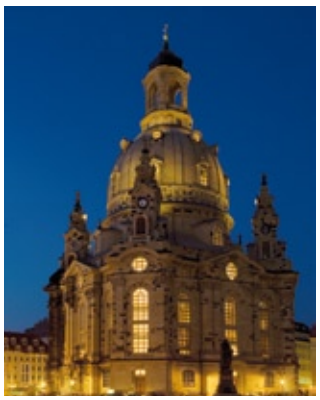
Two types of Restoration-Glasses are available: The "light" type (formerly also called Goetheglas) with an even surface movement is available in sizes of approx. 85x100 cm and a thickness of approx. 2 mm.

The "full" type shows a more pronounced surface movement. This type of glass is produced in sizes of approx. 60x90 cm and is approx. 3 mm thick. Glasses of this type are normally clear. However, they can be delivered by request in all the shades of colour available from the LambertsGlas® palette.

Both kinds of glass can be incorporated into modern insulated glass units. Due to the special annealing processes their cutting properties are excellent. These glasses can be handled easily.

Of course the Original Lamberts-Restoration-Glasses can be used in the most up-to-date insulted glass units which fulfill today's requirements for heat and noise control.

The ability to produce finished insulated glass in 10mm thickness, makes installation possible in pre-existing, narrow profile historic windows.



Frauenkirche Dresden

glass cabinet

View through a machine-made glass

The Light-Restoration-Glass with a soft, minimal distortion.

In comparison, Full-Restoration-Glass shows a bit more intensive movement in the glass.

RESTORATION-GLASSES.

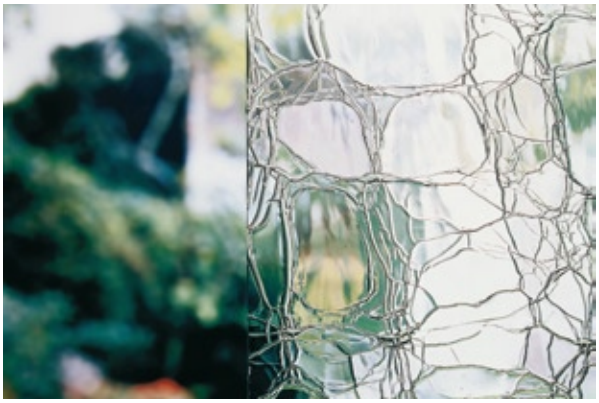
mouth-blown window glass

Crackled-Glasses.

The crackled or craquelé surface effect differentiates mouth-blown Crackled-Glass from the Original Clear and Coloured Glasses. Its fissured and cracked surface is similar to that of crocodile skin.

Production

The balloon-shaped red-hot ball of glass is briefly plunged into cold water after blowing. The tiny cracks appearing on the surface are caused by the temperature shock. The Crackled-Glass is then reheated to close the tiny cracks. Small crisp-edged spots on the surface are attributable to the process.



crackled- or craquelé-effect

Technique and Colours

Crackled-Glass is usually produced in bright tints to show the texture to its full advantage. But almost all the shades of the extensive Lamberts colour palette are available. The size of a sheet is approx.
60x90 cm, the thickness is approx. 3 mm. All the sheets are delivered with their edges still intact. Small variations in the dimensions occur due to the handmade production of the individual sheets.

Fields of Application

Sheets of Crackled-Glass are often incorporated into door- and window-panes to let light pass through while preventing inquisitive eyes from disturbing people's privacy. The glasses can also be used as furniture panels.

CRACKLED-GLASSES.

Reamy-Glasses.

This type of glass is mouth-blown and a special kind of LambertsGlas®. The characteristic features of a pronounced reamy texture include occasional bubbles floating in "frozen currents" of glass, creating lively movement within the sheet.

Production

The active, pronounced texture of Reamy-Glass is achieved by adding glass shards of a special kind to the pot of molten glass shortly before taking the gather out. The further stages of production are in conformity with those of the Clear and Coloured Glasses.

Technique and Colours

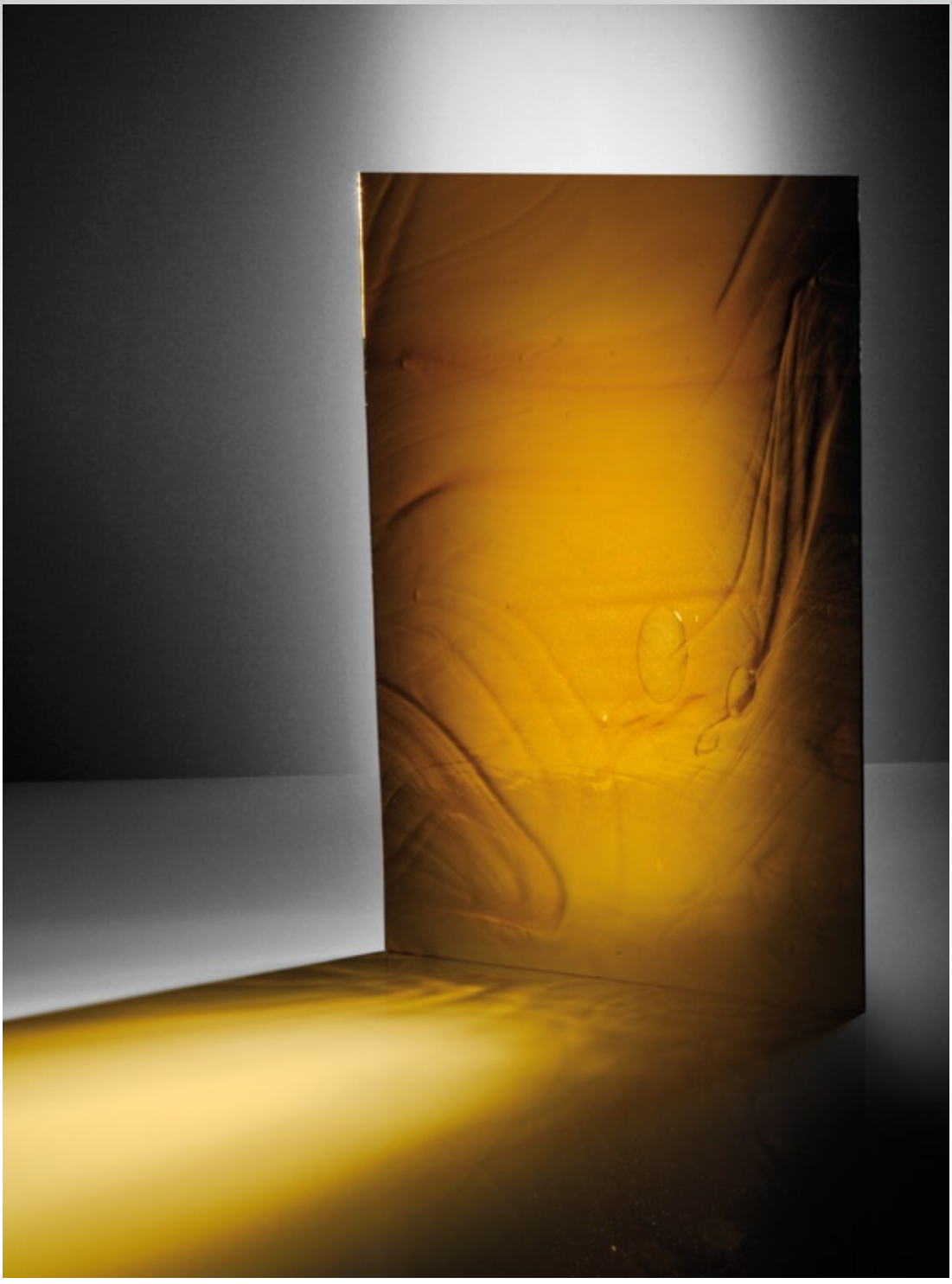
Reamy-Glass is usually produced in bright tints in order to show the textures to their fullest advantage. But almost all the shades of the exclusive Lamberts colour palette are available. In addition, the shaping of the air-bubbles, also called "ox-eyes", can be varied.
The size of a sheet is approx. 60x90 cm, its thickness amounts to approx. 3 mm. All the sheets are delivered with their edges still intact. Small variations in the dimensions occur due to the handmade production of the individual sheets.

Fields of Application

Sheets of Reamy-Glass are often incorporated into door- and window-panes to let light pass through while preventing inquisitive eyes from disturbing people's privacy. The glasses can also be used as furniture panels.

Reamy Glass with strong movement in the glass and an „ox-eye" in the upper section.

REAMY-GLASSES.



Flashed-Glasses.

This type of specially produced mouth-blown sheet glass is given their tint not simply by adding colour to the batch. Their colouration is created by means of the flash technique: The clear or tinted carrier glass is overlaid with one or two layers of coloured glass thus opening almost unlimited possibilities of variation. Consequently, multicoloured „flashes", even curves and slight shadings as well as cloudy and „torn" open glasses can be produced. White milk glasses of opaque or opal quality which allow light to shine through but prevent inquisitive eyes from invading people's privacy offer another large field of applications.

Production

As a molten gather, the substance later to be called „flash" is first brought to the blowpipe. Here the shape is instrumental in bringing about the appearance of the flash. A round balloon produces a uniform flash, a pear-shaped gather creates a shaded flash, and small notches a torn flash. The molten carrier glass is then applied over the small gather and blown into a cylinder shape. During the process of blowing, the appearance of the flash is kept under control. After completion of the glass cylinder, the remaining stages of production are identical to those of the Clear and Coloured Glasses.

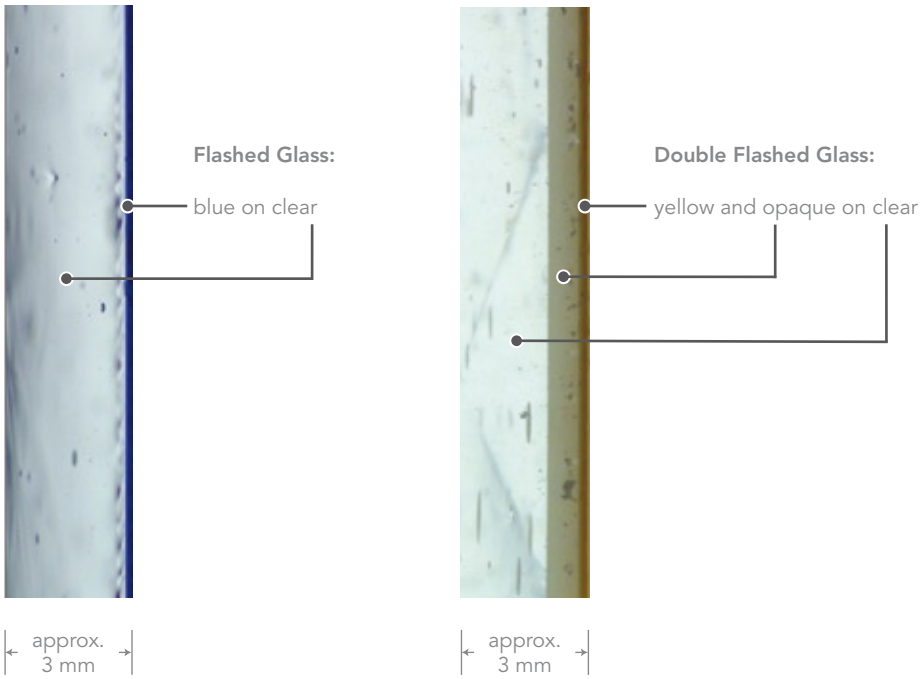
The shaping and colouring process of the flash requires deliberate control, experience and craftsmanship on the part of the glassblower.

Technique and Colours

The size of a sheet is approx. 60x90 cm, its thickness is approx. 3 mm. All the sheets are supplied with their edges intact. Small variations in the dimensions occur due to the handmade production of the individual sheets. Due to the special annealing process, the Lamberts Flashed-Glasses are easily cut and processed.

The Flashed-Glasses vary greatly in shape and colour and are available in an almost unlimited variety of styles. Their classification ranges from the uniform flash with minimal shading, cloudily shaded and torn flashes to multicoloured milk glasses and a special collection of striped Streaky-Glasses.

A cross section of Flashed Glasses:



FLASHED-GLASSES.

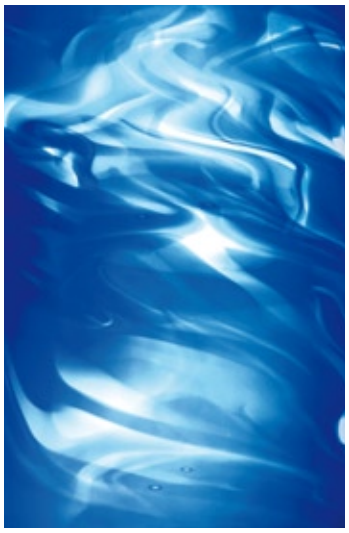
Mixed Glass, multicolored

Marbled, selenium oranges and
opaque white on clear

Graduated shading,
red on clear

Dipped shading,
blue on clear

Graduated shading,
red and blue on clear



Stormy blue on clear

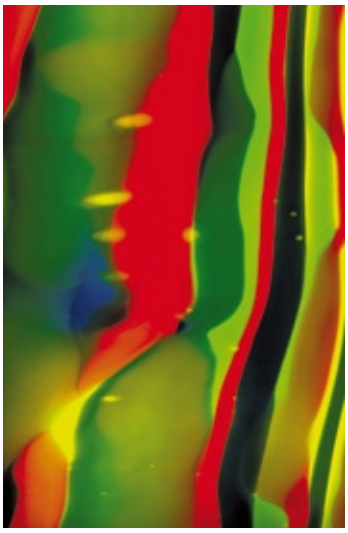
The size of the glass is approx. 60 x 90 cm. and thickness is approx. 3mm. All sheets are shipped with their natural, uncut edges. Small variations in the dimensions occur due to the handmade production of the individual sheets. Because of the special cooling processes, Lamberts Flashed-Glasses are extremely easy to cut and work with.

FLASHED-GLASSES.

Variegated shading,
red on yellow

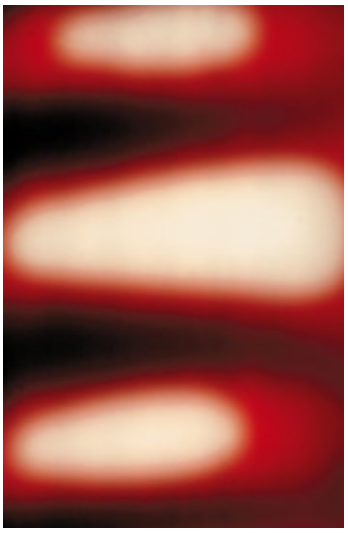
Dappled,
blue and yellow on clear

Twisted,
blue and opaque white on clear



Striped multicolored

Ribbed shading,
blue and opaque white on clear



Gently shaded, red on clear

The character and color variations of flashed glass are practically unlimited.
The individual classifications range from an even flash, to lightly shaded, to cloudy shading and „torn" flashes,
through multicolored mixed glasses and a special group of striped Streaky-Glasses.

Streaky-Glasses - each sheet a work of individual craftmanship.

All the sheets are made by hand, reflecting the time-honoured tradition of glassblowing. Here Glashütte Lamberts has created a work of art with an identity unparalleled: No two sheets are identical. Vivid colours of an inimitable brilliance add a special touch to this glass.

Our illustrations can only give a faint idea of the effects of the glass and the play of colours – they should help you when choosing your individual sheet of Original Lamberts-Streaky-Glass. Identically numbered glasses have the same character with respect to the colour, texture and structure. The unique method of production, however, guarantees the differences which make each and every piece the only one of its kind.

S4 / price-code 203
lemon-yellow and opaque white on clear

S6 / price-code 203
green and opaque white on clear

S12 / price-code 203
lemon-yellow and opaque white on clear

S13 / price-code 203
special-yellow and opaque white on clear

S17 / price-code 203
opaque white on clear

S18 / price-code 203
violet and opaque white on clear

S19 / price-code 203
blue-opaque and selenium-red on clear

S20 / price-code 203
selenium-orange, blue-opaque and opaque white on clear

S25 / price-code 203
lemon-yellow, selenium-orange and opaque white on clear

S26 / price-code 203
selenium-red, selenium-orange and selenium-yellow on clear

S27 / price-code 203
red on clear

S29 / price-code 203
selenium-yellow on clear

S31 / price-code 300
goldpink and blue on clear

S34 / price-code 300
goldpink and opaque white on clear

S36 / price-code 203
green-opal on clear

S39 / price-code 203
selenium-orange on clear

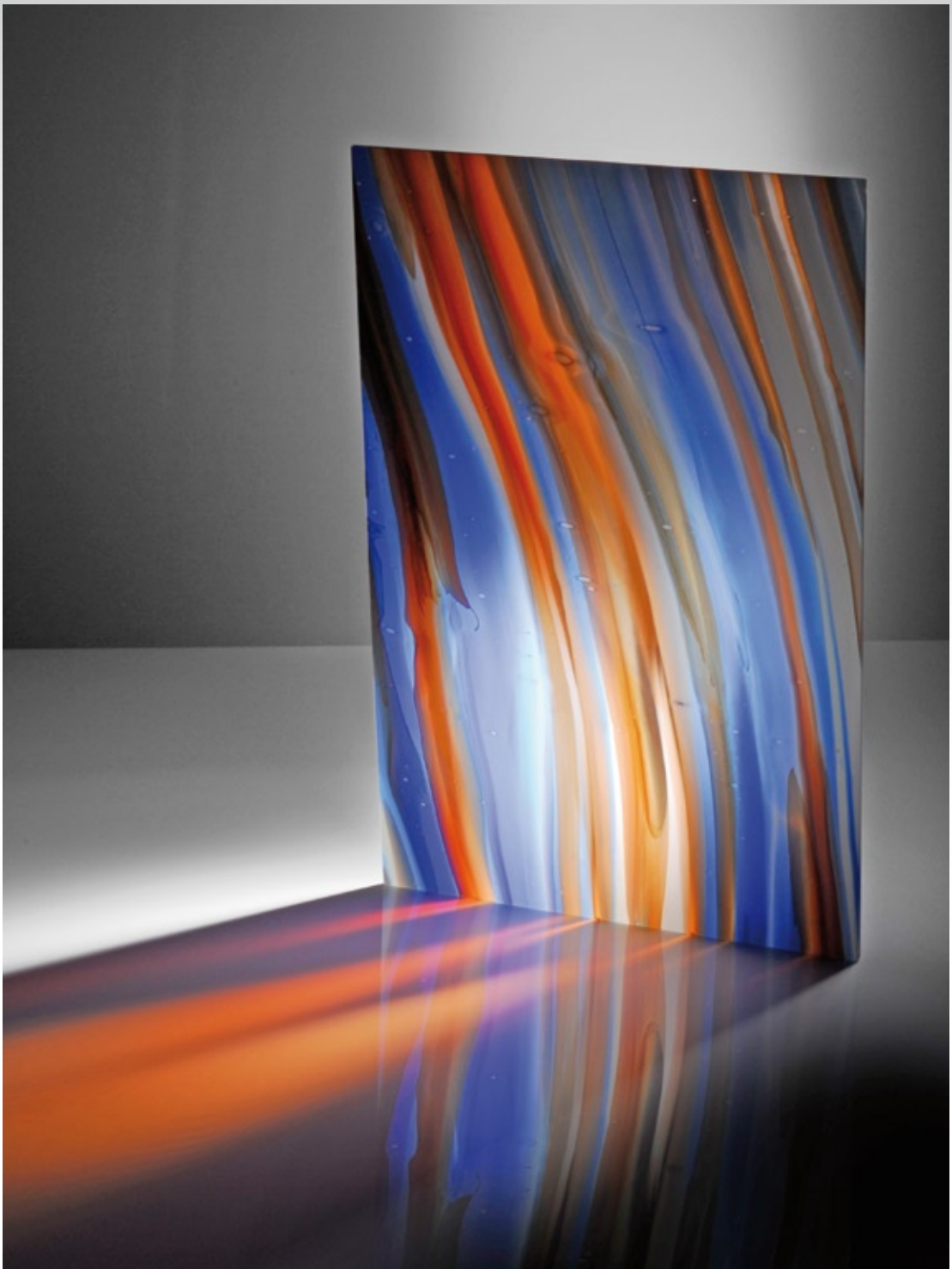
S41 / price-code 203
selenium-orange and opaque white on clear

S42 / price-code 203
pale violet and opaque white on clear

S44 / price-code 203
grey and opaque white on clear

Today's print technology does not allow us to picture the differences between "Opak" (opaque), "Opal" (translucent), and clear (transparent).
Therefore please refer to the notations under the respective glass images.

STREAKY-GLASSES.



S45 / price-code 203
red and opaque white
on clear

S46 / price-code 203
waterblue and opaque
white on clear

S48 / price-code 300
goldpink and opaque
white on clear

S54 / price-code 203
red and opaque white
on clear

S55 / price-code 203
blue and opaque white
on clear

S56 / price-code 203
selenium-yellow and
opaque white on clear

S57 / price-code 203
special-yellow and
opaque white on clear

S58 / price-code 203
green and opaque
white on clear

S61 / price-code 203
opal white on clear

S152 / price-code 203
green-grey and opaque
white on clear

S198 / price-code 203
blue-opaque and
opaque white on clear

S242 / price-code 203
selenium-red on clear

S243 / price-code 203
special-yellow and blue
on clear

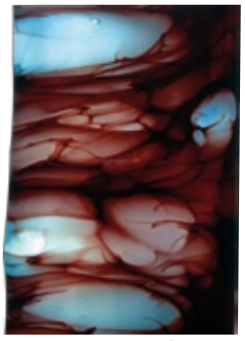
S244 / price-code 203
blue, red and selenium-
yellow on clear

S245 / price-code 213
silver-yellow and violet
on amber

S247 / price-code 213
green, yellow and
violet on brown

S258 / price-code 213
blue on turquoise

S259 / price-code 203
blue on clear



S269 / price-code 213
red and blue-opaque
on green

S277 / price-code 203
selenium-red and
opaque white on clear

Today's print technology does not allow us to picture the differences between "Opak" (opaque), "Opal" (translucent), and clear (transparent).

STREAKY-GLASSES.

S282 / price-code 203
grey-violet and opaque white on clear

S300 / price-code 300
goldpink on clear

S324 / price-code 213
blue on blue

S383 / price-code 300
goldpink, red and blue on clear

S419 / price-code 203
yellow and green on clear

S622 / price-code 300
goldpink, blue and yellow on clear

S652 / price-code 300
goldpink and silver-yellow on clear

V64 / price-code 203
opaque white on clear, variegated shading

V157 / price-code 213
red on blue, variegated shading

V158 / price-code 213
red on green, variegated shading

V159 / price-code 213
red on amber, variegated shading

V160 / price-code 203
red on clear, variegated shading

V161 / price-code 203
blue on clear, variegated shading

V166 / price-code 213
opaque white on grey, variegated shading

V191 / price-code 213
opaque white on amber, variegated shading

G157 / price-code 213
red on blue, graduated shading

G158 / price-code 213
red on green, graduated shading

G159 / price-code 213
red on amber, graduated shading

G160 / price-code 203
red on clear, graduated shading

G161 / price-code 203
blue on clear, graduated shading

Therefore please refer to the notations under the respective glass images.
The dimensions of a sheet are approximately 60 cm x 90 cm, the thickness is approximately 3mm.
The images show full sheets.

New-Antique-Glasses.

This glass type is part of the family of mouth-blown glasses made with the traditional methods of production. Unlike the other mouth-blown Lamberts-Glasses the balloon is blown to a larger size. It is for this reason that its body is thinner and its surface is smoother and flatter. There is an irregular seediness inside the sheet and the bubbles are oval shaped. The surface structure is open.
All the typical features of mouth-blown LambertsGlas® – structure, seediness and movement – are well marked.

Production

The molten gather is first taken from the oven by means of the blowpipe and slowly inflated to the size of a balloon. Due to the size of the balloon this procedure takes place over a deep pit. In the course of the blowing process the balloon is constantly rotated by hand in a mold in order to create a surface structure. After reaching its final size the balloon is cut open at one end and dilated. When the blowpipe has been knocked off, a uniform glass cylinder comes into existence. It is scored lengthwise, reheated, layed open and ironed flat. The result is a finished sheet of glass.

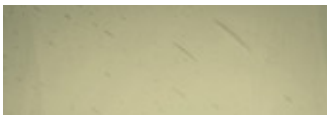
Technique and Colours

The standard size of the New-Antique-Glasses is approx. 90x105 cm and approx. 2 mm in thickness. Their seediness varies within the sheet and the bubbles are oval shaped. Due to a special annealing process, this glass has good cutting properties and is easily processed.
It is produced in clear uncoloured and ten bright tints. Clear New-Antique-Glass is available, in particular, in three stages of seediness: light – medium – strong.

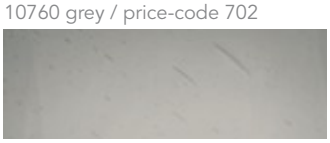
Fields of Application

New-Antique-Glasses are an excellent alternative to normal window panes when it comes to increasing the value of windows or door panels. They are primarily used in private homes and buildings.

New Antique glasses are made primarily in clear and light tints. The sheets are approx. 90 cm x 105 cm and approx. 2mm in thickness. The printed colour depictions will vary somewhat from the actual glass. Please request our glass samples.


10700 grey-yellow / price-code 702


10760 grey / price-code 702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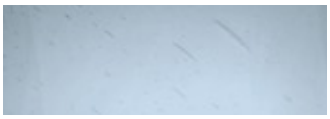
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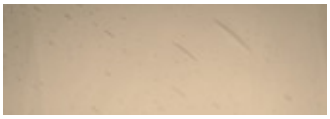
52840 green / price-code 702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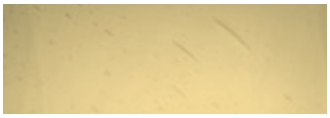
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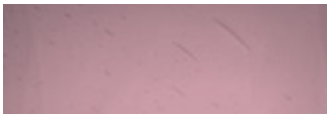
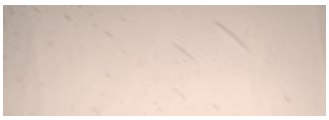
72850 yellow / price-code 702


90550 amethyst / price-code 702


90840 pink / price-code 702

NEW-ANTIQUE-GLASSES.

Genuine Rondels.

The glazing of windows with round disks of glass called Rondels was widely used in the town houses of bourgeois families and other secular buildings during the Middle Ages. These small panes of glass are held together by grooved channels of cast lead.
Today you can find Rondels incorporated into the windows of buildings in many old cities and in sensitively restored edifices.
Genuine Rondels are produced one at a time, by Glashütte Lamberts in the traditional method of blowing glass by mouth. This gives every Rondel a breath of life and brilliance that brings quality and makes every piece a unique work. That is what clearly distinguishes a blown Rondel from the "imitation" Rondel produced by means of pressing or spinning. Genuine Rondels show a play of colours and light in great variety and harmony when applied to sensitively designed leaded settings: They make the window come to life.

Production

The molten glass is taken from the oven by means of the blowpipe. The quantity of glass is related to the desired finished size of the Rondel. It is then blown into to a small balloon the volume of which is second in importance as to the size. The creation of a uniform Rondel of high quality is finally dependent on the master's craftsmanship and know-how. Still hot, the small balloon of glass is now stuck onto a punty rod and knocked off the blowpipe. After reheating, it is cut open by means of a pair of special scissors. In order to be able to handle the glass more easily and to achieve a better stability the master turns down the rim through a special technique. As the master continually rotates the punty rod a small round Rondel takes shape. After reaching the final size the Rondel is tapped off the punty rod and slowly cooled in an oven.

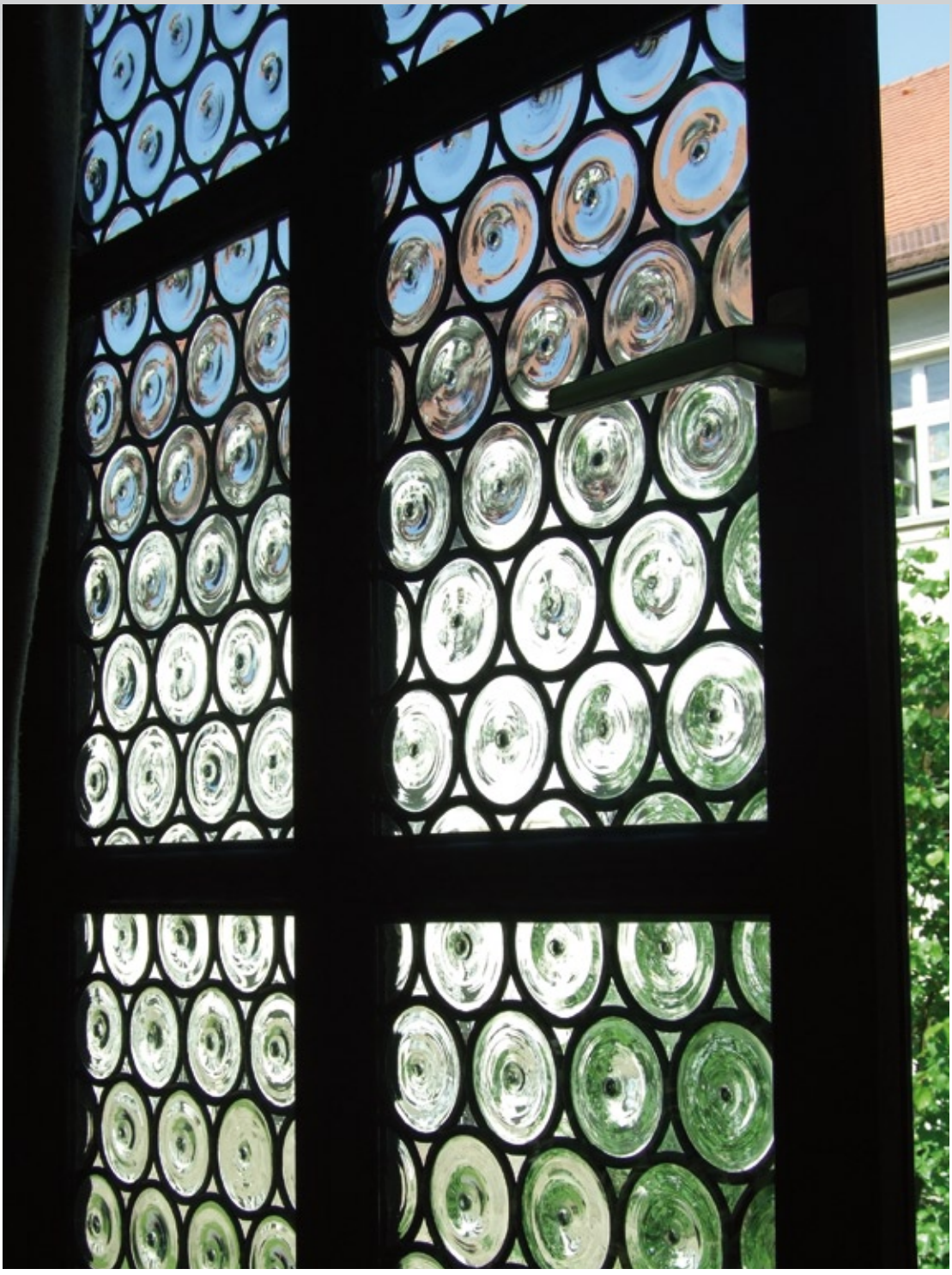
Technique and Colours

Genuine Rondels are produced in sizes of 6 to 13 cm in diameter. Deviations of +/- 0,4 cm occur because they are individually handcrafted. The thickness varies within the disk. The navel in the centre – sometimes sharpedged – and its adjacent area have a thickness of approx. 5 mm. The rest of the disk is approx. 2 to 3 mm in thickness. According to tradition the Rondels are produced in clear and bright colours. A special production for a colour and/or size is possible by special request.

Fields of Application

There is in fact no alternative of equal value to Genuine Rondels when it comes to accurately restoring old windows adorned with such disks of glass. Many also prefer to glaze new windows with these Rondels. Individual Rondels incorporated into doors prove to be eye-catching and can be applied to lamps as well.

GENUINE RONDELS.



Moon Discs.

Tradition has it that the technique of glazing windows with mouth-blown „Moon Discs" was practised as early as in medieval times and was similar to that of producing and incorporating Rondel glasses.
The „Moon Discs" were first made in the 12th and 13th centuries by glassworks located in the woods.
The „Moon Discs" were initially used in castles, palaces and patrician houses. Then, during the Baroque period, mainly in sacred architecture.
Mostly produced in clear, „Moon Discs" appear to be very simple, however their inner movement, a gentle spin, brings life into the window.

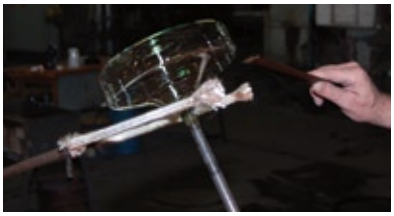
Production

The molten glass is taken from the oven by means of the blowpipe. 01

At first, the molten glass is given a spherical shape which, after being blown into a wooden mold, is spun into a comparatively flat, hollow body. The piece is slowly cooled after the blowpipe has been knocked off. 02 + 03

By means of breaking off the upper part of the body, the bottom is left as a sort of "plate" from which the desired pieces such as round disks and hexagons can be cut. 04

01



03

02

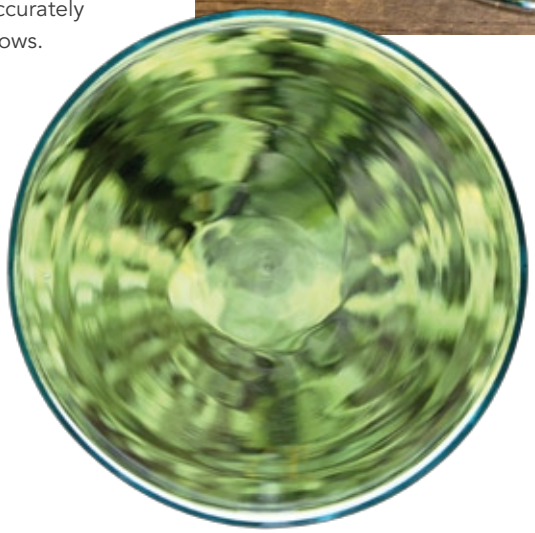
Technique and Colours

The handcrafted mouth-blown glass disks are used when it comes to accurately restoring or building new leaded windows.
The „Moon Discs" produced purely by mouth-blowing are available in diameters ranging from 12 to 23 cm.
Preference is given to clear and bright colours.
The thickness varies from 2 to 3 mm.

04

Fields of Application

Mouth-blown „Moon Discs" are used for accurately restoring or building new lead glazed windows.



MOON DISCS.

Dalle-Glasses.

Dalle-Glasses are individually created by means of a hand casting procedure. Their surface is smooth with occasional open bubbles or streaks.

The slabs have a standard size of 20x30 cm. and are approx. 24 mm thick. Due to the casting by hand the thickness can vary somewhat. Larger sizes are available by special order.

Production

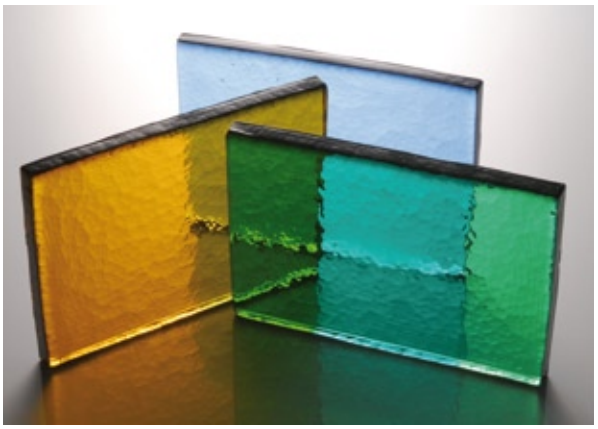
The moment the molten glass has been taken from the oven, it is cast into iron molds resting on top of thick slabs of graphite. After a short period of cooling the pieces are taken to an annealing oven where they slowly lose their tension.

Fields of Application

Dalle-Glasses are incorporated into fabricated concrete units, steel and wooden frames.

Information

Custom sizes are available on request.



DALLE-GLASSES.

Table-Cathedral-Glasses.

Table-Cathedral-Glass is not a sheet glass produced by means of mouth-blowing. To the contrary, it comes into existence through the pouring of molten glass onto a table top of special design, then rolling and flattening under a cylinder. The name is a compound consisting of „table", an essential part of the production machinery, and „cathedral", referring to the window glazing of medieval churches. Apart from the blowing of glass the rolling out of the molten glass is the second traditional method of sheet glass production.
The front surface of the Table-Cathedral-Glass is different from that of the back surface: The fire-polished front has a smooth and slightly grooved texture whereas the back (table-side) is structured by a hammered pattern. Occasional irregularities spread over the surface of this handmade glass are certainly a sign of their genuineness.
Original Lamberts-Table-Cathedral-Glasses have the same fine quality as all our other products. As a matter of fact originality, brilliance and texture of these glasses can only be achieved by expert craftsmanship deeply rooted in tradition.

Production

The molten glass is ladled from the pot, poured onto a special steel table and rolled flat under a cylinder. The structure of the sheet cannot be entirely attributed to the table or the cylinder. The typical surface of Original Lamberts-Table-Cathedral-Glass results from a difference in temperature between the molten glass and the steel table as well as the consistency of the glass itself.

Technique and Colours

The standard size of the sheets is 60x88 cm. They are approx. 3 mm thick and may also be ordered in special sizes up to 88x180 cm. Thanks to a special annealing process, Lamberts-Table-Cathedral-Glass has excellent cutting properties and can be easily processed.

The traditional colours are bright tints and clear. A special single colour production is possible. Our extensive collection of samples is comprised of 30 standard colours.

Fields of Application

These glasses are generally used for the restoration of windows in churches of different styles, including those of the Art Nouveau period, during which time Table-Cathedral-Glass was the primary glass for domes and windows, glass doors and conservatories. These restorations are carried out in strict accordance with the original.


01


02


03

TABLE-CATHEDRAL-GLASSES.

Photo: LWL – Holtappels

Today's glass processing methods include: Cutting to the appropriate size and shape with high-pressure waterjet or laser, drilling, grinding, sawing, and edge polishing. Heating furnaces are used to form and bend glass. Mouth-blown coloured glass produced by Glashütte Lamberts is normally delivered to the processing firms in their original sizes of approx. 60x90 cm. The assortment of colours and types of glass is unsurpassed in their transparency, surface structure and seediness. The resulting 5000+ variations of colour and texture places our firm in a unique position in its field. For the manufacturer or the artist, the glass properties of cutting and processing are of special importance. An even thickness and a carefully controlled annealing procedure guarantee a handling process with minimal waste of the valuable glasses.

Artist: Bernhardt, Ravensburg

Lead Glazing

The glazing of windows goes back to medieval times: Lined up one after the other, the small glass pieces held together by grooved leaden rods produce panes of glass of even larger sizes. If the trade originally had the possibility to build larger window openings with the relatively small handmade glass pieces glazed and placed next to one another, the art of using lead profiles as a graphic element must have quickly developed.
Due to the enormous variety of colours and the vast number of textures of mouth-blown LambertsGlas® modern and traditional lead glazings in any combination of colour and style can be achieved.

Double flashed glass, blue and opaque on clear, acid etched with silver stain.
Artist: Guy Kemper

Etching

The Flashed-Glass is a special product of LambertsGlas®: A carrier glass is overlaid with one, two or sometimes three layers of colour, approx. 0,1 to 0,3 mm thick. These layers can be masked – similar to the batik technique – and etched with acid. Extremely picturesque effects can be brought about this way. Up to three different colours lying on top of each other can thus be blended together. In addition, enamel colours can be applied so that a watercolour effect is created by the Flashed Glasses. Working with the aggressive acid requires due care and attention on the part of the artist craftsman. An endless variation of colour combinations thus comes into being.

GLASS WORKING TECHNIQUES.

Sandblasting
Flashed glasses can also be manipulated by means of sandblasting. However, the surface of the glass in this case retains a frosted texture which evenly diffuses transmitted light. Transparent non-flashed glasses exposed to sandblasting have a frosted surface.

Artist: Prof. Jürgen Reipka

Painting
The combination of different colours inside a piece of mouth-blown LambertsGlas® combined with the processes of etching and sand blasting, can be further enhanced with the technique of painting on glass to open additional variations of colour and design. The outlines are emphasized by means of black paint and contour colours. The enamel colours and glazes can also be applied by silk-screen printing and fired into the glass at a temperature of approx. 600 degrees C or by means of digital printing. Digital printing requires a lower firing temperature of approx. 150 degrees C. Through application of enamel colours and silver stain onto the glass surface and applying covering colours, additional shades are achieved. Painting on glass allows the artist the ability to effectively bring the viewer's attention to the interplay of colours.

Film Lamination
Decoratively glazed commercial buildings make it a requirement for planners and designers to take the protection of the public into their design plans. If the use of laminated safety glass is required, Lamberts' mouth-blown sheet glass can be made into multilayered laminated glass by bonding it to a carrier sheet with a PVB interlayer.

Liquid Lamination
Cast resin or 2-component silicones provide an alternative method of laminating LambertsGlas®. These materials can be applied in different ways and are used by qualified companies to construct glass pictures or glass paintings without lead lines and to form individual glazing units of large dimensions. In this case the pieces of glass are superimposed on a carrier sheet which meets the requirements of the law as a protective glazing and/or the provisions for heat insulation or fire protection. The decorative and artistic elements of these functional glazing units are achieved through the application of LambertsGlas®.

Assembling with Ultraviolet Adhesive
Small pieces of glass are connected by means of an adhesive which hardens in a short time when exposed to ultraviolet light.

Splinter Protective Coating
Under special circumstances the application of a splinter protective coating can be sufficient when it comes to guaranteeing the protection of the public. The almost transparent film prevents a damaged coated sheet of LambertsGlas® from falling apart and offers protection from major injuries.

Creation of a Mirror Effect
Mouth-blown LambertsGlas® furnished with a mirror effect has been well received. The mirror effect changes various shades of yellow into shining gold.
One sees a particularly beautiful effect when light is reflected off the striated surface of the glass.

Insulating Glass
LambertsGlas® can be used in double or triple glazed units.
Particularly in restored windows the genuine effect of this glass is proof of its authenticity.
Mouth-blown LambertsGlas®, even as a lead glazing, can be incorporated into the middle of a triple glazed unit.

GLASS WORKING TECHNIQUES.

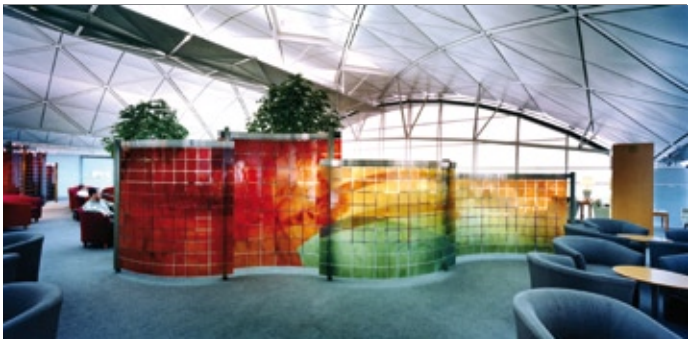
Lighting
Mouth-blown LambertsGlas® is used in ceiling or wall fixtures with back-lighting. White opaque glass spreads the light effectively thus producing a gentle, even lighting. Due to a special flashed technique, opaque glass develops a slight marble-like pattern which gives the glazing a soft liveliness.

Bending of Glass
On special occasions there can be a need to bend glass sheets or adapt them to a curved surface. Mouth-blown LambertsGlas® can be easily bent and curved.

Advisory Service
It has been shown that the possibilities for home owners, engineers, architects and designers are almost un-limited and often require experienced consultants. For expert advice we recommend contacting companies specializing in these fields.

REFERENCES & PROJECTS.

The Original LambertsGlas® is at home throughout the world. Our mouth-blown and handmade glasses are transforming light in countless buildings and homes around the globe. A brief excerpt from our list of installations gives you an insight into the multitude application possibilities of Original LambertsGlas®. Please visit **www.lamberts.de** for a comprehensive list of project references accompanied by images and impressions.



Airport Hong Kong
Artist: Karl Heinz Traut
Photo: Horst Goebel, Görsroth

Baltimore/Washington International Airport
Artist: Guy Kemper
Photo: Alan Gilbert

Office Building EDG Dortmund
Artist: Oswald Krause-Rischard, Wetter/Ruhr

Hospital Bad Oeynhausen
Artist: Prof. Johannes Schreiter

Indianapolis Airport
Artist: Martin Donlin

Maritim Hotel Pro Arte, Berlin
Artist: Peter Kuckei

Kaohsiung Main Station, Taiwan
Artist: Narcissus Quagliata

www.lamberts.de

Beaumont Public Library
Artist: Guy Kemper
Photo: Walt Roycraft

Landmark Place Slough
Artist: Martin Donlin

Private home
Backlit LambertsGlas®

LambertsGlas®

Glashütte Lamberts

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