

Annex to Quotation

In addition to our quotation and on the basis of our General Terms and Conditions and the Guideline for Curved Glass of the German Federal Association for Flat Glass (Bundesverband Flachglas e.V.), each in their latest wording, the following **Notes and Supplementary Conditions** shall apply

Price validity:	3 months from the date of the quotation
Pricing:	Fixed price valid for the requested version and only for the complete scope of the quotation. Amendments or individual reorders shall require a new calculation.
Packaging:	See quotation.
Transport insurance:	Included in glass price. The insurance covers breakage during transport, not during unloading. The latter must be insured by the Client. We reserve the right to charge a share of the costs in the event of delivery to site.
Terms of payment:	By agreement.

The dimensions and quantities indicated in the enquiries are adopted by us without further examination. These must be checked by the Client on receipt of the order acknowledgement; errors must be reported immediately.

Curved Glass

A project-specific static glass thickness predimensioning has not been carried out by us. This lies in the Client's sphere of responsibility. The glass thicknesses quoted by us are dictated by the production process and are based solely on our general production guidelines; they are no substitute for structural dimensioning.

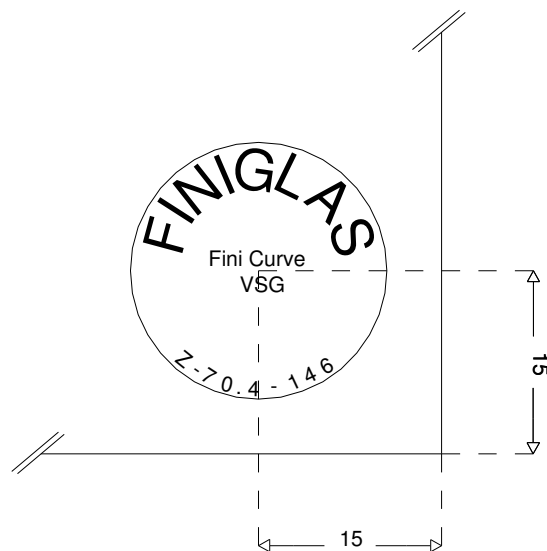
Under a separate order, we can carry out a glass thickness predimensioning calculation for you based on your enquiry specification. This is a calculation without obligation and not a structural or other engineering verification in the sense of the regional building laws that can only be provided by an officially recognised project planning administrator.

Please note that in Germany, curved glass is not a normal building material and that an individual approval is therefore required for every application. Exceptions to this are products with a general construction approval (abZ). FINIGLAS Veredelungs GmbH has a general construction approval (Z-70.4-146) for "FINI CURVE FLOAT" curved float glass and laminated safety glass made from float glass, "FINI CURVE VSG". If expertises are to be provided or are required, these must be specified separately.

The obtaining of an individual approval or a general building authority test certificate is the responsibility of the Client.

The German national technical approvals for "FINI CURVE FLOAT" and "FINI CURVE VSG" can be downloaded under the following link: <http://finiglas.semco glas.com/service/downloads.html>

As manufacturers we are obliged to mark all delivered glazings with a stamp: Unless otherwise indicated, this stamp will be made on "FINI CURVE FLOAT" and "FINI CURVE VSG" approx. 15 / 15 mm from the corner (see sketch below).



During the production of high-quality curved glass, failures due to fractures or flaws can occur in individual cases, so that a postponement of the probable delivery dates indicated by us cannot be ruled out.

In the case of reorders and/or complaints, batch-specific deviations in the glass colours can occur. No complaints can be accepted in such cases.

The risk of breakage and the danger of scratches, edge damage, etc. in the case of toll work must be borne exclusively by the Client.

Prestressed Glass

Prestressed glass can contain non-detectable nickel sulphide inclusions that are technically unavoidable during the production process. As a result, spontaneous fractures can occur on exposure to heat.

By carrying out a heat soak test of single-pane safety glass, we can ensure that spontaneous fractures due to nickel sulphide inclusions can be reduced to a technically unavoidable residual risk. This must be expressly ordered.

The thermal prestressing process may result in chemical and mechanical changes to the surface properties of single-pane safety glass. For example, spotting or roller marks may occur.

An unfavourable combination of glass type, glazing size and glass thickness together with e.g. a shallow curve radius or large curve angle results in technically unavoidable deteriorations in optical quality, in particular in waviness of the surfaces and increased tolerances.

Anisotropies occur in glass subjected to a thermal prestressing process. The different stress zones lead to a double refraction of the light beams. As a result, the polarised parts of the natural daylight appear as rainbow-coloured rings, clouds and similar images (iridescence). These phenomena are physically unavoidable during the production process and do not constitute grounds for complaint. In the case of reorders, the arrangement of the anisotropy fields can vary even within a production lot. A corresponding sample can be produced at the express request of the Client.

Please note also the technical notes for prestressed glass (dimensional tolerances, side ratios, location of bore holes, deviations from the plane, etc.). Note in particular here that the distance between a bore and the edge of the glass must be at least 2x the glass thickness to the edge of the bore. If this distance is not observed, the bore may be slit to the edge of the glass at our discretion and without further consultation with the Client.

As producers of single-pane safety glass, we are obliged to mark all delivered glass, i.a. to ensure the prescribed product traceability. This is performed using a decal (stamp) that is permanently burnt into the glass (approx. 15 / 15 mm from the corner).

Should marking (stamp) not be required, we will try to take this into consideration. If a stamp is nevertheless made, then this is due to the marking obligation required by law and does not constitute grounds for complaint. We should point out, however, that unmarked prestressed glass used as a building product does not conform to the CE regulations and therefore in accordance with the stipulations of the building regulations may not be placed onto the market. Should the Client expressly waive the stamping of the glass, all associated risks shall pass to the Client.

Insulated Glass

Curved insulated glass has a higher susceptibility to stress cracking. We therefore recommend wet installation to minimise the risk of fracture. We decline all liability for pressure-related complaints.

Furthermore, the responsibility for compatibility tests with sealants, etc. lies with the Client.

Depending on the type and properties of the coating and the glass, coating flaws in the form of scratches and spotting can occur during the bending of coated glass. This is due to the production process and cannot be completely ruled out and therefore does not constitute grounds for complaint.

Edge dressing by agreement; the dressing of soft-coated units, however, is generally by hand. By comparison with flat glass, curved insulated glass is produced as standard with a raised back covering – this has to be taken into consideration accordingly during the design planning. No consideration is given to the installation situation in the design of the back covering

Above an interspace between panes of 18 mm (with double insulated glass) or 14 mm (with triple insulated glass), no warranty can be given for the leak-tightness of the unit.

The physical light and radiation characteristics and soundproofing values indicated apply to flat glass on the basis of the corresponding normative principles (in particular DIN EN 673 and DIN EN 410). These can change as a result of unavoidable tolerances in the base glass or coating. The tolerances must be taken into consideration when assessing the heat protection of buildings in the summer.

Laminated Safety Glass

Due to the high risk of fracture, we urgently advise against the drilling of holes in curved laminated safety glass made from float glass. If holes are nevertheless required, the risk of fracture must be borne solely by the Client.

With thick glass (e.g. VSG 24 mm) there is a risk of corner spalling and damage to the height edges due to the high weight. These may then have to be manually dressed.

All versions of unprotected, unsealed edges of laminated safety glass panes outdoors can result in visual impairments (clouding, blistering, etc.) due to the penetration of moisture over the course of time, also due to high or salty humidity, possibly combined with high temperature, via the glass edge into the PVB intermediate film.

Tolerances (according to the "Guideline for Curved Glass")

The tolerances indicated below apply to cylindrically curved glass and are defined for a maximum edge length of 4000 mm and a maximum angle of curvature of 90°.

Please consult us for dimensions in excess of the above.

The tolerances indicated apply to all edge dressings. The quality of the edge machining is at least trimmed. All other edge dressings must be agreed upon in writing before placement of the order.

All tolerances quoted are referred to the glass edges.

A = Developed edge

H = Height edge

	Glass thickness	Float glass	Single-pane safety glass	Laminated safety glass	Double insulated	
A / H ≤ 2000 mm	≤ 12 mm	.+ / - 2 mm.	.+ / - 2 mm.	.+ / - 2 mm.	.+ / - 2 mm.	mm
A / H ≤ 2000 mm	> 12 mm	.+ / - 3 mm.	.+ / - 3 mm.	.+ / - 3 mm.	.+ / - 3 mm.	mm
A / H > 2000 mm	≤ 12 mm	.+ / - 3 mm.	.+ / - 3 mm.	.+ / - 3 mm.	.+ / - 3 mm.	mm
A / H > 2000 mm	> 12 mm	.+ / - 4 mm.	.+ / - 4 mm.	.+ / - 4 mm.	.+ / - 4 mm.	mm
	-	.+ / - 3 mm / running metre		.+ / - 3 mm / running metre		-
True-to-contour	-	Absolute value: min. 2 mm		Absolute value: min. 2 mm		-
	-	max. 4 mm		max. 5 mm		-
Straightness of H	≤ 12 mm	.+ / - 2 mm.	.+ / - 2 mm.	.+ / - 2 mm.	.+ / - 2 mm.	mm per running metre
Straightness of H	> 12 mm	.+ / - 3 mm.	.+ / - 3 mm.	.+ / - 3 mm.	.+ / - 3 mm.	mm per running metre
Distortion	-	.+ / - 3 mm.	.+ / - 3 mm.	.+ / - 3 mm.	.+ / - 3 mm.	mm per running metre
Edge offset (≤ 5 m²)	-	-	-	.+ / - 2 mm.	.+ / - 3 mm.	mm per running metre
Edge offset (≤ 5 m²)	-	-	-	.+ / - 3 mm.	.+ / - 4 mm.	mm per running metre
Location of bore holes	-	-	EN 12150	EN 12150	-	-
Glass thickness tolerance	-	EN 572	EN 572	-	-	-

With laminated safety glass, the glass thickness is the sum of the individual glass thicknesses without intermediate layer.

The tolerances apply to laminated safety glass made from float glass, single-pane safety glass or tempered glass.

With curved glass, tangential transitions and curving of the developed edges must always be expected.

Distortion referred to the longest edges of the glazing unit.

Edge offset referred to the height and developed edge: The figure is valid for all edge dressing process - the offset of the drilling bores in laminated safety glass depends on this tolerance.

Additional Services

Glass specimens: EUR 25.- each

Polishing of scratches: EUR 55.- per hour plus travel costs

Model dimensioning: EUR 30.- per model

Packaging instructions: EUR 20.- per case

Individual glass stamp: EUR 10.- each

Site delivery: EUR 75.- for delivery within Germany

Crane delivery: On request

Film packaging: EUR 5.- each

Crate packaging to IPPC standard: EUR 50.- per case

Subsequent edge dressing ("Premium edge"): Laminated safety glass: EUR 25.- per running metre