

## FLOAT GLASS

# ExtraClear™

### Naturally clear glass

Standard clear glass has an inherent greenish colour. This is visible in particular when viewing the edge of the glass or in a composite stack of many glass lites. Responsible for the colour appearance is the content of iron in the sand and other raw materials. GUARDIAN ExtraClear™ contains up to 5 times less iron compared to standard clear float glass.

Well-selected materials as well as the use of the latest glass manufacturing technologies give GUARDIAN ExtraClear™ its typical characteristics, which are highly appreciated by architects and planners.

Especially the enhanced colour neutrality in transmission and reflection as well as the outstanding transparency make the difference to common clear float glass.

GUARDIAN ExtraClear™ can be toughened or laminated.

It is the preferred choice for many applications such as:

- High transparent façades
- Partitions, shop fronts, show cases
- Table tops, shelves, consoles, folding screens
- Solar applications
- Transparent laminated safety glass
- Silk-screen printed glass
- Horticulture glass / greenhouses

PROJECT: Opera House – LOCATION: Copenhagen, Denmark – ARCHITECT: Henning Larsen Architects





photography: H.G. Esch, Hennef

PROJECT: Lufthansa Aviation Centre – LOCATION: Frankfurt, Germany – ARCHITECT: Ingenhoven Architekten

## STANDARDS AND APPROVALS

GUARDIAN Europe has obtained ISO 9001 accreditation for the manufacturing of float glass at all its European based float glass plants.

GUARDIAN ExtraClear™ float glass complies with the requirements of the standards EN 572-2: 1994 “Glass in Building – Basic soda lime silicate glass products – Part 2: Float glass” and DIN 1249-10: 1990 “Glass in Building; chemical and physical properties”.

Thickness [mm]	Light Transmission [%]	Light Reflection [%]	Colour Rendering Index [Ra]	Direct Energy Transmission [%]	Energy Reflection [%]	Energy Absorption [%]	Solar Factor [%]	Shading Coefficient [g/0,80]	UV Transmission [%]
3	91	8	99	88	8	4	89	1.11	77
4	91	8	99	87	8	5	88	1.10	74
5	90	8	99	86	8	6	87	1.09	71
6	90	8	99	84	8	8	86	1.07	69
8	90	8	99	83	8	9	85	1.06	65
10	89	8	98	80	8	12	83	1.04	61
12	88	8	98	78	8	14	82	1.02	59

The performance values shown are nominal and subject to variations due to manufacturing tolerances. The data were determined according to EN 410.

The products in this publication are sold subject to GUARDIAN's standard terms and conditions of sale and any applicable written warranties. It is the responsibility of the purchaser to confirm that the products are suitable for their intended application. Please contact your local GUARDIAN representative to obtain any applicable handling and fabrication guides and for the most current product information.