

PLEXIGLAS® GS Blocks

Product

From a thickness of 30mm onward, cast PLEXIGLAS® sheets are classed as blocks.

Properties

In addition to the well-known and proven properties of PLEXIGLAS®, such as

- excellent light transmission and brilliance
- extremely high weather resistance
- ease of fabrication
- high surface hardness
- low weight – half the weight of glass
- 11 times the impact strength of glass
- 100% recyclability,

PLEXIGLAS® blocks offer the following special features:

- absolute transparency for an undistorted view
- resistance to several tonnes of water pressure
- resistance to solvents and chemicals

Applications

These properties make PLEXIGLAS® GS block material particularly suitable for

- aquarium glazing such as cylinders, tunnels, flat and curved glazing supported on four and three sides. Larger sizes can be produced using butt joints;
- swimming pool glazing
- architecture featuring light and water
- glazing of pressure equipment such as submersibles, and hyperbaric chambers for medical use
- artwork and decoration
- model-building and prototypes
- furniture construction
- illuminated signs

Machining

PLEXIGLAS® block material can be machined just like standard PLEXIGLAS®. The following Guidelines for Workshop Practice are available for PLEXIGLAS®:

- Machining PLEXIGLAS® (Ref. No. 311-1)
- Forming PLEXIGLAS® (Ref. No. 311-2)
- Joining PLEXIGLAS® (Ref. No. 311-3)
- Surface Treatment of PLEXIGLAS® (Ref. No. 311-4)
- Fabricating Tips for PLEXIGLAS® Solid Sheet (Ref. No. 311-5)

Physical forms

PLEXIGLAS® block material is available in the following sizes and thicknesses:

Standard size: 3000 x 2000 [mm]

Special sizes: 5000 x 2000 [mm],

6000 x 2200 [mm], 6000 x 3000 [mm] and

7800 x 3000 [mm]

Standard thicknesses: 30 – 80 [mm]

Special thicknesses: up to 180 [mm]

The material is available in transparent, translucent or opaque colors. Satin surfaces can be provided on one or both sides. The material can also be supplied with special product properties such as higher chemical resistance, or UV transmission.

You will find more details in the PLEXIGLAS® Sales Handbook Typical properties

For typical values, please consult the Technical Information sheet on PLEXIGLAS® GS/XT (211-1).

Certificates are available for special applications

- EU Pressure Equipment Directive
- Classification and Construction Regulations III Marine Technology (Underwater Technology, Diving Units) of Germanischer Lloyd
- SAFETY STANDARD FOR PRESSURE VESSELS FOR HUMAN OCCUPANCY ASME PVHO-1-2007

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Evonik Industries is a worldwide manufacturer of PMMA products sold under the PLEXIGLAS® trademark on the European, Asian, African and Australian continents and under the ACRYLITE® trademark in the Americas.

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Ref-No. 222-18 November 2012