

PLEXIGLAS® Hi-Gloss C1 & C2

Colored acrylic sheets with a piano lacquer effect

Product

PLEXIGLAS® Hi-Gloss sheets are made of acrylic containing colored or special-effect pigments. The sheets are provided with an additional perfectly smooth, high-gloss layer of clear-transparent PLEXIGLAS® that enhances the colors or special effects and makes them glow even brighter.

All colors in the PLEXIGLAS® sales range (Silver, Interference, Gold, Metallic and Multicolor Pigments) are suitable for high-gloss, eye-catching applications.

Hi-Gloss C1 grades have a colored acrylic layer on one side and a clear-transparent PLEXIGLAS® core.

Hi-Gloss C2 grades have a colored acrylic core and are coated on both sides with a layer of clear-transparent PLEXIGLAS®.

Both grades of acrylic sheet are obtained by a coextrusion process that permanently fuses up to three independent melt streams of high-quality PLEXIGLAS®.

Properties

In addition to the typical properties of PLEXIGLAS® such as:

- excellent light transmission and brilliance
- very high weather resistance
- ease of fabrication
- high surface hardness
- low weight – half the weight of glass
- 100% recyclability

- 11 times the impact strength of glass,

all PLEXIGLAS® Hi-Gloss grades offer the following special characteristics:

- high gloss
- deep-view color effect.

As additional properties, PLEXIGLAS® Hi-Gloss C1 offers:

- resistance to high and low temperatures
- resistance to wet/dry cycling
- resistance to chemicals
- resistance to alternating wet/dry air cycling
- good resistance to stress cracking.

The grades of the PLEXIGLAS® Hi-Gloss C1 series meet the wet/dry cycling test prescribed by European Standard EN 263. The PLEXIGLAS® molding compound or PLEXIGLAS® sheets manufactured from this compound are protected under EP patent application 03740478.7.

Applications

- Kitchens (alcove paneling)
- Baths and spas (shower partitions)
- Living rooms (wall design)
- Interior design (hotels, restaurants, offices...)
- Exhibition booths, furniture, store fixtures
- Façade construction
- Displays
- Lampshades
- Area lighting or luminous displays (only applies to Hi-Gloss C2).

Machining

PLEXIGLAS® Hi-Gloss can be machined just like standard PLEXIGLAS®.

The following Guidelines for Workshop Practice are available for PLEXIGLAS®:

- Machining and Installing PLEXIGLAS® Hi-Gloss (Ref. No. 332-3)
- 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 Sheets (Ref. No. 311-5)

Physical form

The PLEXIGLAS® Hi-Gloss grades are supplied in standard sizes of 3,050 mm x 2,050 mm and in thicknesses of 3 – 10mm. Greater lengths can be provided (up to 12.5 m) with an extrusion width of 2,050 mm.

You can find more information in the PLEXIGLAS® Sales Handbook.

Scratch-resistant coating

This is also possible for Hi-Gloss C1 and C2. Just contact us.

Technical data

Mechanical properties	PLEXIGLAS® Hi-Gloss C1	Unit	Test standard
Density	1.19	g/cm ³	ISO 1183
Charpy impact strength	16	kJ/m ²	ISO 179/1fu
Tensile strength	77	MPa	ISO 527- 2/1B/5
Nominal elongation at break	7.6	%	ISO 527- 2/1B/5
Thermal values			
Vicat softening temperature	109	°C	ISO 306, B50
Permanent service temperature, max.	79	°C	-
Sanitary standard			
Excellent resistance to high and low temperatures in accordance with the standard for sanitary- grade acrylic		≥ 105° C	EN 263
Resistant to chemicals in accordance with the standard for sanitary- grade acrylic		5 test media	EN 263
Resistant to wet/dry cycling in accordance with the standard for sanitary-grade acrylic		20 cycles	EN 263
Behavior to water			
Water absorption (24 h, 23°C) compared with dry state, specimen 50 x 50 x 2 mm	40	mg	ISO 62, Method 1

For further typical values for acrylic, please refer to Technical Information PLEXIGLAS® GS/XT (211-1). The values listed there also apply to Hi-Gloss C2.

* = registered trademark PLEXIGLAS is a registered trademark of Evonik Röhm GmbH, Darmstadt, Germany.
Certified to DIN EN ISO 9001 (Quality) and DIN EN ISO 14001 (Environment)

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

Evonik Industries AG

Ref. No. 232-21

November 2012



Contact us

Tel. (02) 9417 6111 Fax. (02) 9417 6169
Web. www.allplastics.com.au
Address. Unit 20/ 380 Eastern Valley Way,
Chatswood, NSW 2067 AUSTRALIA.

