

PLEXIGLAS®

PLEXIGLAS®
for Visual Communication
and Shop Fitting



© Shutterstock/zhu difeng

POLYVANTIS



Contents

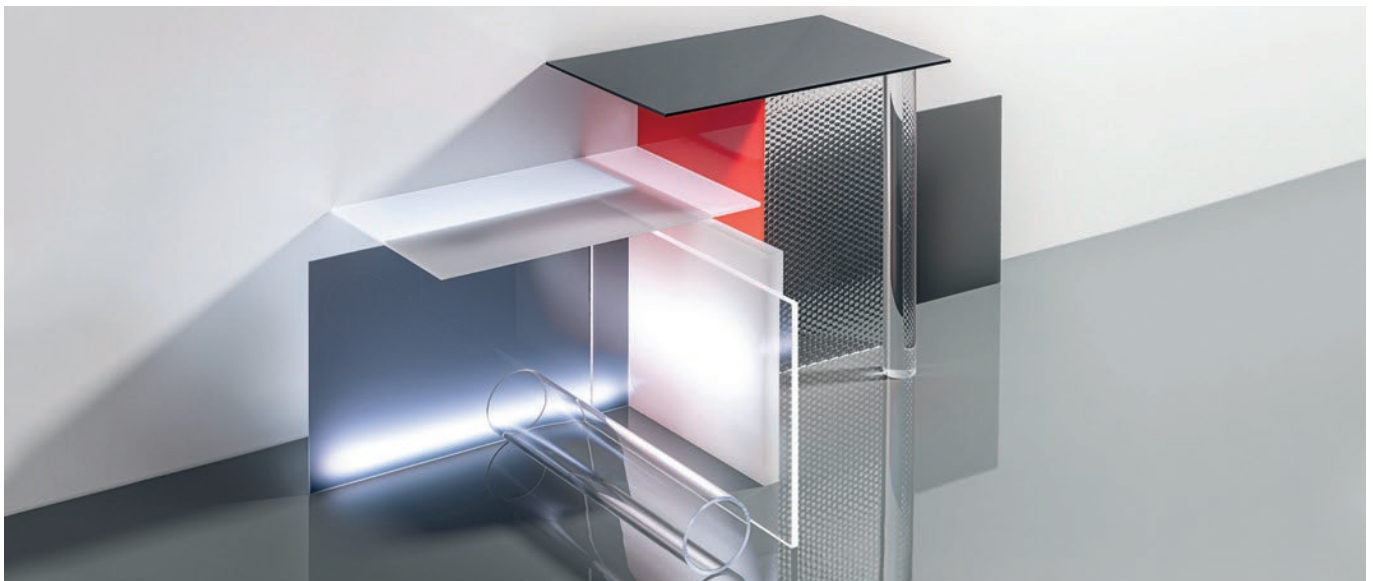
| | |
|--|-----------|
| Forms and properties | 3 |
| PLEXIGLAS® in signage | 4 |
| Back lighting without hot spots | 6 |
| Creative signage and smooth routed lettering | 8 |
| PLEXIGLAS® for exhibitions, shops, and events | 10 |
| Outstanding displays | 12 |
| Striking paneling for walls and counters | 16 |
| Products and applications | 19 |

Discover PLEXIGLAS® — the original!

What exactly distinguishes branded acrylic from all the other acrylics in the world? PLEXIGLAS® is the original, invented in 1933, and still produced today by POLYVANTIS GmbH. With remarkable pioneering spirit, a passion for innovation, and decades of experience, the original material, a transparent sheet, has now evolved into an entire product family: PLEXIGLAS® semifinished pro-

ducts are available, for example, as matt, colored, or light-diffusing variants, with a variety of surfaces and many different functional properties.

Let your inspiration roam free with the widely varied options for spectacular signage and striking accents for exhibitions, shops, and events!



A variety of forms:

- Solid sheets and blocks
- Tubes and rods
- Multi-skin and corrugated sheets
- Films

Ideal properties for individual design:

- Sophisticated appearance thanks to outstanding light transmission and brilliance
- Available in a variety of forms and colors
- Surfaces ranging from high gloss to silky matt
- Light-diffusing, light-guiding, or high-transparency
- Low weight
- Break resistance
- Easy to process and install
- Durability
- UV resistance



PLEXIGLAS® in signage
Eye-catching. Versatile.
Durable.



- PLEXIGLAS® GS/XT
- PLEXIGLAS® LED for back lighting
- PLEXIGLAS® Resist
- PLEXIGLAS® Satinice

Well proven over decades, yet always innovative

Wherever you look, advertising messages are luring potential purchasers. For decades PLEXIGLAS® acrylic has been a leading material for illuminated outdoor advertising because it diffuses light particularly uniformly, offers an immense variety of form and color, and is durable. PLEXIGLAS® has also developed continually in response to innovations in lighting technology: For example, it also meets requirements for back lighting with the latest generation of LEDs.

Colored to almost any desired shade

Signage needs to do more than just catch the eye; it should also be easily recognizable and conform to the corporate identity of a company. Acrylic of the brand PLEXIGLAS® can be accurately colored to the required CI colors so that the signage at all sites worldwide has the same appearance, whether or not it is illuminated. It is also possible to realize special effects such as a change from black by day to white or colored by night.

Easily formed

PLEXIGLAS® acrylic allows realization of design ideas, and not only in regard to coloration. The material is very easily formed, with retention of its lighting characteristics, thus allowing design to be combined with outstanding functionality. PLEXIGLAS® is suitable for illuminated signage of any dimensions: Large sheet sizes allow production of meter-high channel letters, while the material also permits accurate production of small letters a few centimeters high. Individual elements are easily linked to one another with ACRIFIX®, a specific adhesive for PLEXIGLAS®.

Highly resistant

Logos and large advertising signs with PLEXIGLAS® sheets retain their high-quality appearance and radiant colors over long periods. This is because the material is resistant to UV radiation and therefore excellently protected against unwanted color changes and surface damage, even under extreme climatic conditions.



■ PLEXIGLAS® GS/XT

■ PLEXIGLAS® LED for back lighting

■ PLEXIGLAS® Resist

Back lighting without hot spots Light-diffusing. Intensely colored. Durable.

PLEXIGLAS® diffuses light uniformly

A few years ago, fluorescent tubes dominated signage; today it is the smaller and energy-efficient LEDs that are mainly in use. This has raised requirements on signage materials because only the right combination of illuminant and surrounding material will lead to efficient illuminated signage. PLEXIGLAS® semifinished products diffuse the strong spot lighting of LEDs so uniformly that the undesired brightness differences known as hot spots are largely prevented, even in relatively compact designs.

PLEXIGLAS® brings colors to life

PLEXIGLAS® LED for back lighting has been specially designed for the requirements of light boxes where LEDs are mounted across the entire area behind the light-diffusing material. The color grades of these variants have been matched to the same wavelength ranges in which red, green, yellow or blue LEDs radiate. In this way the light is used optimally and colors glow with particular power and richness.

PLEXIGLAS® despite sunlight

Illuminated signs are continuously exposed to weather. But thanks to integrated UV protection, PLEXIGLAS® allows colors to glow durably: Colors are retained, white remains white, and black stays black—all with a 10-year guarantee.

At a glance:

- Well-balanced light diffusion for back lighting with LEDs
- Optimized for back lighting with colored LEDs
- Durability due to integrated UV protection

Creative signage and smooth routed lettering Color changing effects. Sophisticated. Powerful.

PLEXIGLAS® changes color

With the right back lighting, signage objects can easily change their hue from high-contrast black through the day to white or colored by night. With PLEXIGLAS® LED for back lighting, a special variant that changes the color, surfaces appear, for example, strongly black by day. When the illumination is then switched on as darkness falls, the advertising sign glows powerfully in the color of the LEDs. The color thus changes from black to white, for example, or black to red—which is exactly right for signage that should not only glow in the dark but also catch the eye during the day. In addition, amazing effects can be realized in interior design with counters, room dividers, and other illuminated objects.

PLEXIGLAS® brings lettering to luminous life

Routed illuminated lettering is currently popular for drawing attention to brand names in shopping malls and the shop-in-shop sector. PLEXIGLAS® products allow production of lettering with a sophisticated appearance that is easy to handle, yet makes a strong impression through light and elegance of design.

PLEXIGLAS® LED for back lighting brings out the best from the light diodes in the interior: a soft, pleasant, and clearly controlled light without hot spots. The material is also easily processed because the letters and lighting channels are routed out from translucent white PLEXIGLAS®; no complex metal processing is required. In this way sophisticated lettering is produced from illuminated letters in front-lit, back-lit, or edge-lit variants.



At a glance:

- Color changing effects from black to either white or colored
- Good light diffusion for uniform illumination without hot spots
- Sophisticated routed lettering thanks to easy processability



PLEXIGLAS® for exhibitions,
shops, and events
Customizable. Luminous.
Inspiring.



- PLEXIGLAS® GS/XT
- PLEXIGLAS® LED for back lighting
- PLEXIGLAS® LED for edge lighting
- PLEXIGLAS® Optical
- PLEXIGLAS® proTerra

Set accents

Stand out in the bustle of the trade show or shopping mall, or generate an astonishing “wow” effect at events or product presentations: The design versatility offered by PLEXIGLAS® acrylic sets striking accents in exhibition booth design, shop fitting, and museum applications as well as in activity spaces and on event platforms. The huge variety of colors, forms, surfaces, and functionalities ensures suitability for any design.

Impress with light

Because PLEXIGLAS® is also easily illuminated, it is perfectly suited for uniformly illuminated wall paneling, counters, displays, and room dividers—because, even in the presence of other distractions, light always attracts the eye. Illuminated elements also serve to reproduce the colors of the company, a campaign, or an event in a highly visible way. Even the entire floor of a booth or the rear panel of a TV set is transformed by PLEXIGLAS® sheets into a brilliantly illuminated platform.

Even more striking than illuminated elements are black areas that are transformed into screens on demand. Here again PLEXIGLAS® LED for back lighting scores with its excellent light diffusion.

PLEXIGLAS® LED for edge lighting can also serve as a back-lit element for slim illuminated wall paneling, for example. In addition, it is suitable as a transparent room divider that becomes two-dimensional accent lighting when illuminated. Thanks to RGB-LED, this is possible in any desired color.

Offer fascinating insights

Sometimes even things that are initially overlooked can grab the attention: Displays, showcases, and demonstrators made from highly transparent PLEXIGLAS® allow undistorted views of high-quality exhibits or offer insights into the workings in the interior of a machine. At the same time they protect exhibits against undesired access—and, thanks to the UV resistance of PLEXIGLAS®, also against the yellowing effect of the sun’s UV radiation.

Being easy to clean and resistant to signs of wear, PLEXIGLAS® retains its high-quality appearance over the long term. The variant PLEXIGLAS® Optical, with abrasion-resistant coating, is available for particularly heavily used surfaces.



- ▶ PLEXIGLAS® GS/XT
- ▶ PLEXIGLAS® Hi-Gloss
- ▶ PLEXIGLAS® Optical
- ▶ PLEXIGLAS® proTerra
- ▶ PLEXIGLAS® Reflections
- ▶ PLEXIGLAS® Satinice
- ▶ ACRIFIX®

Outstanding displays Customized. Effective. Classy.

PLEXIGLAS® realizes ideas

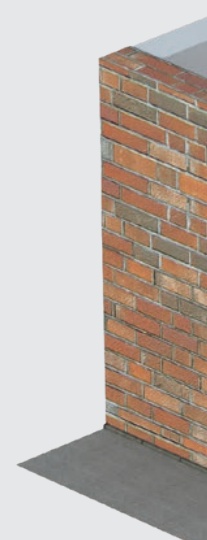
With PLEXIGLAS® acrylic, every object that needs to be displayed to particular advantage becomes the center of attention. With its variety of forms, colors, and surfaces, the material offers scope for creative ideas, from minimalist design all the way to impressive product presentation.

For design of displays, multi-skin and corrugated sheets, tubes, and rods are also available in addition to solid sheets and blocks. PLEXIGLAS® variants can be obtained in a large variety of colors and, if required, with exciting fluorescent effects and different surfaces such as high-gloss with depth effect, matt satin, or textured. Because the material is also easily printed, the design possibilities are unlimited.

PLEXIGLAS® for a brilliant platform

Another exciting alternative for product presentation is offered by the interplay of PLEXIGLAS® with light: Matt variants permit a discreet lighting effect that presents the product in an eye-catching but not overly obtrusive way. On the other hand, smooth, high-gloss and pore-free surfaces—particularly in black or white—produce striking effects with reflected light.

- 1 Rear panels
- 2 LED back-lit illuminated signage
- 3 Formed/reshaped objects
- 4 Tubes
- 5 Counters
- 6 Matt partition walls
- 7 Illuminated objects
- 8 Back-lit wall paneling
- 9 Displays/sales counters



PLEXIGLAS® presents and protects

Displays made from highly transparent PLEXIGLAS® acrylic can produce stunning effects, for example when objects appear to be floating thanks to transparent holders. PLEXIGLAS® is more transparent than glass and offers a clear and undistorted view. Products are thus displayed to the best possible advantage, brilliantly and in their natural colors.

In closed product displays or showcases, PLEXIGLAS® offers the contents double protection—against unwanted access and also, thanks to the material's intrinsic UV resistance, against sunlight. The objects presented, as well as the display itself, thus remain permanently fade-resistant and visually appealing.

PLEXIGLAS® is high-grade and tough

Displays made from PLEXIGLAS® semifinished products retain their sophisticated appearance even in places where they are heavily used, such as at sales booths. The hard-wearing matt surface of PLEXIGLAS® Satinice ensures that neither fingerprints nor other marks of wear stand a chance. Also available for heavily used surfaces is PLEXIGLAS® Optical, resistant to chemicals and with an abrasion-resistant coating, which is offered in a high-gloss surface or soft-matt finish.

PLEXIGLAS® is easily processed

Because PLEXIGLAS® acrylic is easily processed it imposes no limits on the imagination. The variety of forms and colors allows production of outstanding displays without great effort or expense. Engraving sets additional expressive accents, as do printing and three-dimensionally molded display elements.

Special adhesives offered under the ACRIFIX® brand name are available for the correct bonding of individual PLEXIGLAS® elements. These are suitable for many different types of adhesion. The bond itself is virtually invisible. Matt surfaces can also be matt bonded in this way.

PLEXIGLAS® is suitable for food contact

Requirements on food displays are particularly demanding: The presentation must be both appetizing and hygienic. During use, for example, no components hazardous to health may be transferred to the food. All the clear PLEXIGLAS® sheets and tubes tested satisfy the relevant EU requirements, as well as the FDA regulations valid in the US for food contact. This does not apply to surfaces with abrasion-resistant coatings.

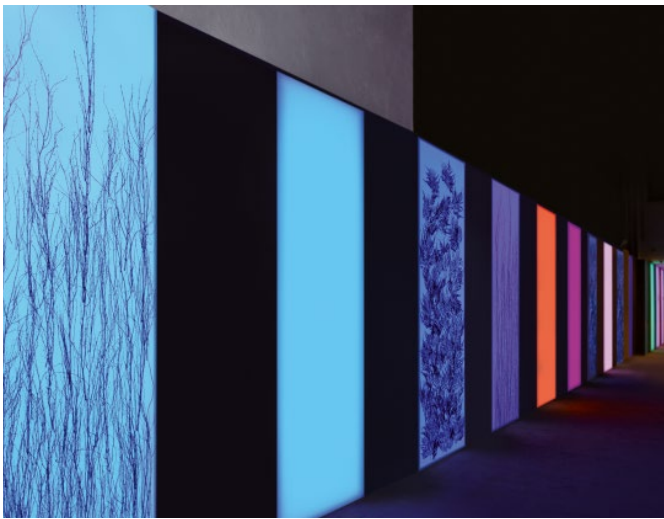
High-transparency PLEXIGLAS® product chutes and tubes are also easily processed, display food without distortion, and allow easy withdrawal. With the current trend toward packaging-free shopping, such modern product chutes are in demand not only in zero-waste stores but also increasingly in supermarkets.

Details for ACRIFIX® are available in brochure 191-1, titled ACRIFIX® Adhesives and Auxiliaries.



At a glance:

- Immense variety of forms, colors, and surfaces for unlimited freedom of design
- Easily processed for highly imaginative shapes
- Special effects by illumination
- Safe for food contact



Striking paneling for walls
and counters
Stylish. Illuminable.
Resistant.

At a glance:

- Immense variety of forms, colors, and surfaces for unlimited freedom of design
- Individual effects through illumination and thanks to outstanding printability
- Lightweight, break resistant and easy to clean
- Special deep-view effect

- **PLEXIGLAS® GS/XT**
- **PLEXIGLAS® Hi-Gloss**
- **PLEXIGLAS® LED for back lighting**
- **PLEXIGLAS® LED for edge lighting**
- **PLEXIGLAS® Optical**
- **PLEXIGLAS® proTerra**
- **PLEXIGLAS® Reflections**
- **PLEXIGLAS® Satinice**
- **PLEXIGLAS® Textures**

PLEXIGLAS® is tough

Materials used in shop fitting need more than visual appeal. Where the material needs to be break resistant as well as durable and at the same time significantly lighter than glass or tiling, PLEXIGLAS® always proves to be the optimal choice. PLEXIGLAS® Optical is also provided with a coating resistant to chemicals and wear, and is therefore easy to clean.

PLEXIGLAS® suitable for every design

In addition, PLEXIGLAS® product range provides the appropriate solution for every design concept: The material offers a huge variety of colors and, because it can be very easily printed, is infinitely customizable. Different surfaces can also contribute toward an individual look: PLEXIGLAS® Hi-Gloss, for example, captivates by its fascinating deep-view effect and extremely elegant appearance. On the other hand, PLEXIGLAS® Satinice, with its velvety surface, is better suited to more subtle design concepts.

PLEXIGLAS® sets luminous accents

Whether discreet and restrained or colorful, light has a major influence on the character of a space. The combination of PLEXIGLAS® with LEDs permits absolutely homogeneous light quality as well as low recess depths for illuminated rear panels, counters, and doors, in addition to special effects. Thanks to the excellent light guiding properties of PLEXIGLAS® LED for edge lighting, for example, transparent lighting elements can be transformed when required into striking full-surface illuminated design elements.

More information on the design possibilities of PLEXIGLAS® in interiors is available in brochure 512-4 titled PLEXIGLAS® for Furniture and Interior Design.



Products and applications

| | Signage | | | Exhibitions, shops, and events | | |
|----------------------------------|---------------------|-------------|--------------|--------------------------------|----------|-----------------------------|
| | Illuminated letters | Light boxes | Light panels | Exhibitions and events | Displays | Walls and counter panelings |
| PLEXIGLAS® GS/XT | • | • | | • | • | • |
| PLEXIGLAS® Hi-Gloss | | | | • | • | • |
| PLEXIGLAS® LED for back lighting | • | • | | • | | • |
| PLEXIGLAS® LED for edge lighting | | | • | • | | • |
| PLEXIGLAS® Optical | | | | • | • | • |
| PLEXIGLAS® <i>proTerra</i> | • | • | | • | • | • |
| PLEXIGLAS® Reflections | | | | • | • | • |
| PLEXIGLAS® Resist | • | • | | | | |
| PLEXIGLAS® Satinice | | • | • | • | • | • |
| PLEXIGLAS® Textures | | | | | | • |
| PLEXIGLAS® Tubes and Rods | | | | • | • | |
| ACRIFIX® | • | • | | • | • | |

POLYVANTIS GmbH

Riedbahnstraße 70
64331 Weiterstadt
Germany

www.plexiglas.de
www.polyvantis.com

® = registered trademark

Semi-finished polymethyl methacrylate (PMMA) products from POLYVANTIS are sold on the European, Asian, African and Australian continents under the registered trademark PLEXIGLAS®, in the Americas under the registered trademark ACRYLITE®, both owned by Röhm GmbH, Darmstadt, or its affiliates.

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.

Ref. no. 511-8 04/24 (en)