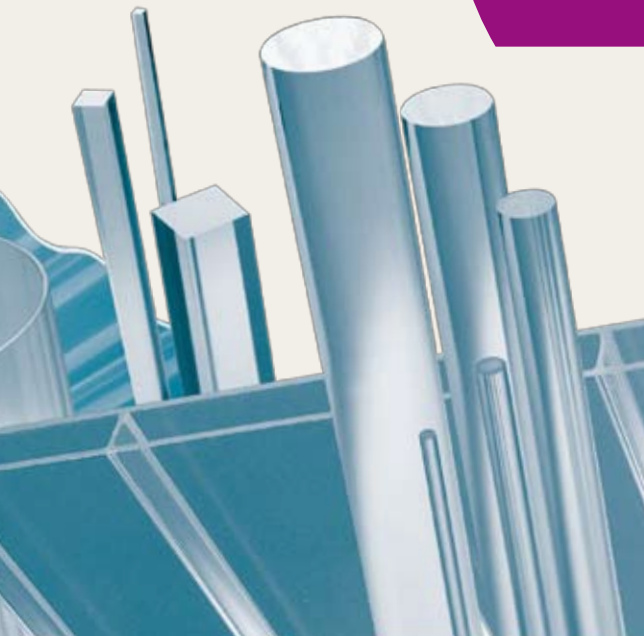


# PLEXIGLAS® will not yellow! Guarantee Statement



We guarantee that clear-transparent solid sheets, multi-skin sheets, corrugated sheets, blocks, tubes and rods marketed under the PLEXIGLAS® trademark will show no yellowing and will retain a high level of light transmission for 30 years.

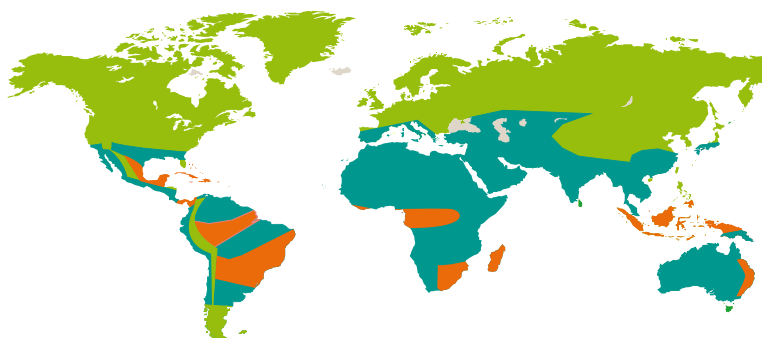
# PLEXIGLAS® – 30 Year Guarantee

## No Yellowing

Many plastics yellow visibly in the course of time. PLEXIGLAS® does not. Even after 30 years, the absolute yellowness indices are among the lowest possible for plastics at the present time. PLEXIGLAS® complies with the guaranteed values listed in the table throughout the world.

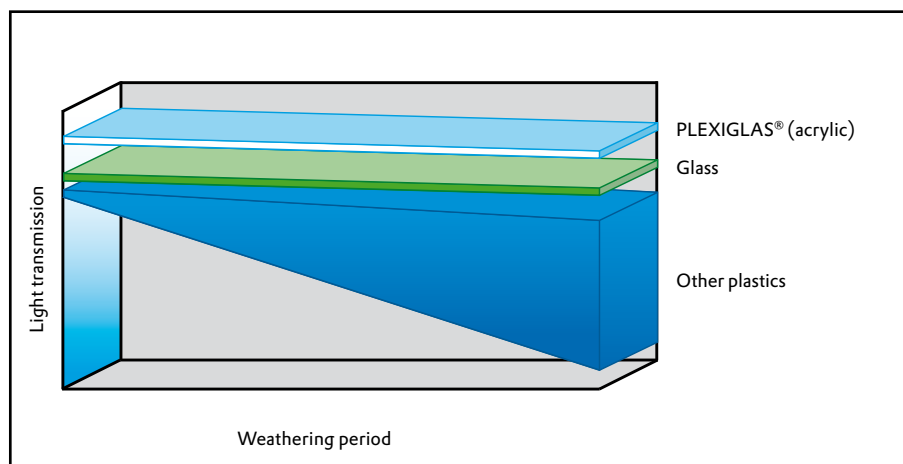
We give you our guarantee that sunlight will not visibly change the appearance, brilliance and surface of clear-transparent PLEXIGLAS® in the course of 30 years.

Absolute YI Date of Sale	30 Years Later	Climatic Zone
0-1	- 5	temperate
0-1	- 6	hot, dry
0-1	- 8	hot, humid



## More Light

Many plastics lose a considerable portion of their light transmission during use. Sheets may become darker. PLEXIGLAS® does not. Depending on material grade and region, clear-transparent sheets still retain up to 90% light transmission after 30 years of service life. This is one of the best transmission levels offered by any plastic.



**We guarantee that PLEXIGLAS® sheets will show no visible yellowing for 30 years.**

**We guarantee that PLEXIGLAS® sheets in Clear grade will retain a high level of light transmission for 30 years.**

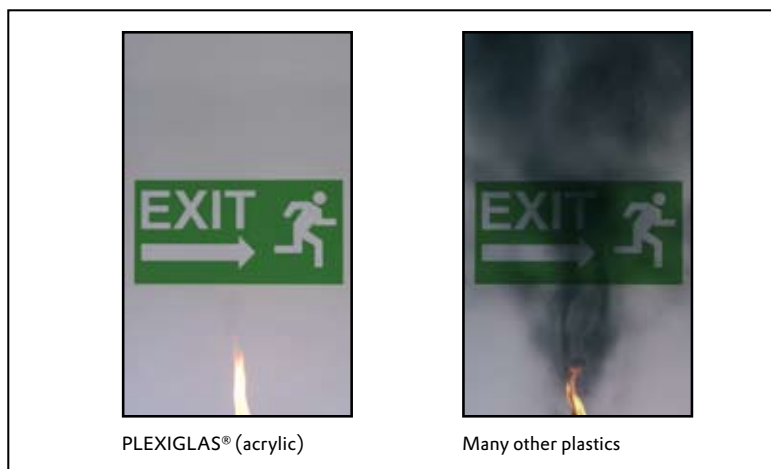


# PLEXIGLAS® – 30 Year Guarantee

## Hardly Any Smoke

Upon combustion, many plastics produce thick smoke and/or toxic gases that may be very dangerous to human health. PLEXIGLAS® does not. PLEXIGLAS® in Clear grade and in standard colors burns almost without smoke and forms no toxic or corrosive gases.

In the event of fire, PLEXIGLAS® may therefore help to protect people and property.



## Environmental Consciousness

Sustainable development is an integral part of our business processes. Our corporate decisions take into account the interests of present and future generations as well as economic, ecological and social aspects. Based on this sense of corporate responsibility, we develop and manufacture PLEXIGLAS® by means of environmentally sound processes. We take care to ensure that our high-quality products are environmentally friendly and durable.

PLEXIGLAS® is free from

- bisphenol A
- heavy metals such as cadmium and mercury
- asbestos, formaldehyde, CFCs, PCB, PCT

PLEXIGLAS®

- complies with the relevant regulations for use in toys and packaging
- is manufactured by environmentally sound processes at certified facilities (quality standard DIN EN ISO 9001, environmental certificate DIN EN ISO 14001)

For information on further guarantees related to hail resistance, rigidity, strength etc., go to [www.plexiglas.net](http://www.plexiglas.net)

We guarantee that PLEXIGLAS® will retain its fire behavior even after 30 years of weathering.

Sustainability and responsibility for our products and their use are among our basic principles.



# Be on the Safe Side with PLEXIGLAS®

## Beware of UV Radiation!

Humans need light and warmth. The sun gives us both, but sunlight also contains harmful ultraviolet (UV) rays, more and more of which are now reaching Earth's surface due to the hole in the ozone layer.

Everyone who has ever suffered from sunburn knows the harmful effects of UV light.



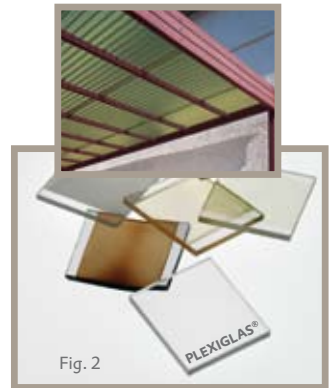
## Beware of Confusion – Insist on PLEXIGLAS®!

There are many transparent plastics for exterior applications. It's often hard to tell the difference between them when you buy (Fig. 1).

Dangerous UV radiation can cause dramatic changes in most plastics. They may turn yellow or brown, and become unsightly (Fig. 2).

Products that contain natural UV protection throughout the material are best equipped.

### NEW



## Be on the Safe Side with PLEXIGLAS® 30-Year Guarantee!

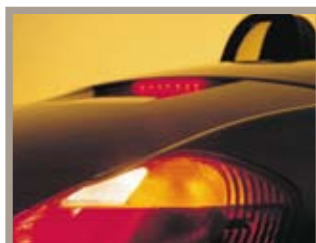
PLEXIGLAS® has such natural UV protection. That is what makes PLEXIGLAS® one of the best plastics of all for exterior applications, whether in the automotive or aviation industry, in carports or patio roofs – one that has been around for over 70 years.

PLEXIGLAS® defies the yellowing effect of UV radiation thanks to its NATURALLY UV-STABLE technology.

Because we are so sure of that fact, we offer a new 30-year guarantee against yellowing and light loss for all purchases from April 1, 2007.



Aircraft cabin windows made of PLEXIGLAS® protect passengers from strong UV light, substantial differences in pressure and extreme cold.



Since automotive taillights must retain their color even after many years of service, many car manufacturers rely on PLEXIGLAS®.



# Better Technology for Your Roof

## Ideal Protection Through NATURALLY UV-STABLE Technology

PLEXIGLAS® consists of extremely strong, UV-stable molecules through and through.

The special NATURALLY UV-STABLE technology stabilizes PLEXIGLAS® completely from within. That means the entire sheet is UV-stable, not just a thin surface layer.

### PLEXIGLAS® sheet



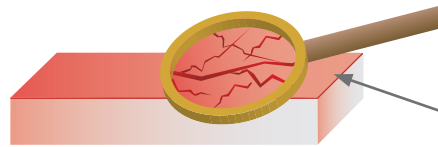
The NATURALLY UV-STABLE technology stabilizes 100% of the material against UV radiation (■).

## How Effective Are UV-Protective Layers?

UV-sensitive plastics are often provided with protective layers to shield them from UV radiation.

Coatings such as lacquers and other types of film are often very thin and liable to scratch, flake or crack.

### Sheet with UV-protective layer

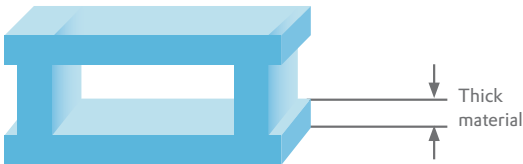


Almost the entire material thickness is UV-sensitive (■).

Thin protective layer

Thicker material (not just thicker walls in multi-skin sheets) often makes for more stable roofs and reduces rain noise.

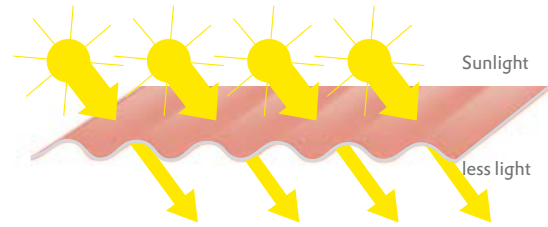
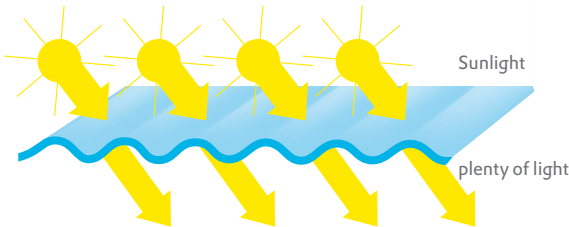
### PLEXIGLAS® multi-skin sheet



### Multi-skin sheet made of other plastics



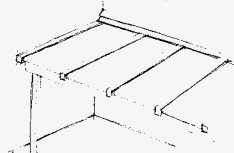
By nature, PLEXIGLAS® shows one of the highest levels of light transmission offered by any plastic.



## Sample Calculation for Typical Roofing

A roof built with PLEXIGLAS® offers many superior properties, at only slightly higher overall cost.

Roof with	PLEXIGLAS® multi-skin sheets	Other plastics
wood:	1,250 euros	1,250 euros
profiles:	700 euros	700 euros
multi-skin sheet:	900 euros	700 euros
eaves gutter:	130 euros	130 euros
	<u>2,980 euros</u>	<u>2,780 euros</u>



## Quality Comes at a Price ...

PLEXIGLAS® multi-skin and corrugated sheets are often a bit more expensive than other plastics that appear comparable at first sight. And for very good reason:

Compare for yourself!	PLEXIGLAS®	Other plastics
"No yellowing" guarantee	30 years	usually 10 years
Natural UV protection	yes	no
UV-stable through and through	yes	no
Light transmission	very high	lower
Stability/rigidity	very high	lower
Rain noise	muted	louder
Material thickness	thick	thin
Guarantee	value on delivery	usually, present market value

# Tests Passed with Flying Colors



## State Materials Testing Institute (MPA), Darmstadt

On delivery, PLEXIGLAS® is clear-transparent and retains this property during weathering tests.



## Darmstadt Technical University (TU)

PLEXIGLAS® behaves similarly to stainless steel. It is a plastic that grows older without aging. Its unsurpassed durability and weather resistance make PLEXIGLAS® such a valuable construction material.



## German Institute for Building with Plastics (IBK)

PMMA shows the highest light transmission and is an excellent light conductor, better than inorganic glass.



## Trademark of the Century

In 2006, PLEXIGLAS® was admitted to the illustrious group of trademarks of the century. This distinction takes into account the familiarity, quality and availability of the selected products.



## Institute for solar thermal technology, SPF

The various PMMA specimens show amazingly good behavior. Clean specimens show virtually no reduction in solar transmittance.



For more information go to [www.plexiglas-info.com](http://www.plexiglas-info.com)

# PLEXIGLAS® – 30 Year Guarantee

**IMPORTANT: This Guarantee Statement is a legally non-binding convenience translation of the original German language „Garantieerklärung“ available under [www.plexiglas.de](http://www.plexiglas.de) or [www.plexiglas-info.de](http://www.plexiglas-info.de). Any rights or claims alleged to be available under or in relation to this Guarantee Statement shall exclusively be governed by the German language „Garantieerklärung“**

## PLEXIGLAS® does not yellow visibly

Colourless, transparent PLEXIGLAS® has a yellowing value of 0–1 when new. Depending on product type and design, the yellowing value is only 4–7 delta higher after 30 years. The yellowing value is measured as per DIN 5036 on cleaned and polished specimen conditioned in a standardized climate at 23 °C/50% rel. hum. until equilibrium is reached.

## PLEXIGLAS® retains high level of transparency

Colourless PLEXIGLAS® has a light transmission when new of up to 92% depending on product type and design. Depending on product type and design, light transmission is only 2–8% lower after 30 years. The transmission factor  $\tau_{D65}$  is measured as per DIN 5036 on cleaned and polished specimen conditioned in a standardized climate at 23 °C/50% rel. hum. until equilibrium is reached.

## PLEXIGLAS® retains its combustion behaviour

Colourless PLEXIGLAS® burns nearly smoke-free and produces no acutely toxic flue gases. All product types and designs do not change their combustion behaviour within a 30-year period. Light absorption by smoke is measured acc. to DIN 4101-1 Annex B. PLEXIGLAS® burns nearly smoke-free, i.e. light absorption by the smoke is < 15%. The acute toxicity of flue gases is measured as per DIN 53436. PLEXIGLAS® is considered harmless in this respect.

## Terms & Conditions, Exclusions

All guarantee values shall be determined using cleaned specimen. In case of complex profiles, the measured values shall be determined on flat and plane-parallel specimen, since otherwise the material values cannot be determined with sufficient accuracy. Textured semi-finished goods – only on the more roughly textured side if both sides are textured – must be measured with the textured side facing the light source, at the original thicknesses. The products must have been stored, transported, processed, installed and used in accordance with the requirements of the subject materials. They must not have been thermally moulded or exposed to detrimental effects of harmful chemicals. For information on proper use, care and deployment of our products go to [http://www.plexiglas.net/methacrylates/en/products/plexiglas/infocenter/\\_download/](http://www.plexiglas.net/methacrylates/en/products/plexiglas/infocenter/_download/) on the internet and see the relevant print publications.

## Duration of Guarantee

This Guarantee begins with the day of delivery to the end-user and expires upon deinstallation of the first application, intentional or wilful destruction, or 30 years after the date of purchase, whatever occurs earlier. Any Guarantee claims shall exclusively be determined and governed by the version of this Guarantee Statement valid on the date of purchase of the material in question. The applicable version(s) in each case are found at [www.plexiglas.net](http://www.plexiglas.net) or at [www.plexiglas-info.com](http://www.plexiglas-info.com).

## In case of a guarantee claim

Any rights or claims raised hereunder shall be subject to the following,

- The user must present us a bill from the seller showing the name and address of the user, date of purchase, full product type/name and the product quantity so purchased.
- The guarantee claim must be submitted to us, during the term of this Guarantee, in writing within 30 days.
- We ourselves must without delay be permitted to inspect the defect and its potential causes on site, or to have another party do so on our behalf.

## Claims exclusively available hereunder

In case all terms and other conditions hereof are fulfilled such that the user has a valid claim hereunder we will replace the defective PLEXIGLAS® product ex works. If equivalent replacement material is no longer manufactured by us or can no longer be supplied, the user will receive a refund of the original purchase price. No other or further rights or claims of any kind shall be available hereunder.

## Consumer Rights, applicable Law & Jurisdiction

This Guarantee does not affect or restrict any rights or claims specifically available to consumers under applicable law. This Guarantee shall exclusively be governed by and construed under the laws of Germany, as applicable on the date of purchase of the goods in question, without giving effect to conflict of laws principles. The exclusive place of jurisdiction for any rights or claims from this Guarantee shall be Darmstadt, Germany.

Evonik Röhm GmbH  
Kirschenallee  
64293 Darmstadt  
Germany.



® = 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)

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30/1107/09427 (en)



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