



PLEXIGLAS®
Double-skin sheet

valid from 05/2024

**PLEXIGLAS® Resist AAA* SDP 16/980 (/1200)-64
Diffuss ORS09 D NO DROP**

Guarantee statements

We guarantee the following properties for the above product in accordance with this guarantee declaration:

Yellowing

Yellowness index	Climate zone: temperate	Climate zone: warm, dry	Climate zone: warm, humid
on delivery	max. 1	max. 1	max. 1
Δ after 10 years	max. 2	max. 3	max. 4
Δ after 30 years	max. 4	max. 5	max. 7

Light transmission

Transmittance level τ_{D65}	Climate zone: temperate	Climate zone: warm, dry	Climate zone: warm, humid
on delivery	min. 83 %	min. 83 %	min. 83 %
after 10 years	min. 80 %	min. 79 %	min. 75 %
after 30 years	min. 77 %	min. 71 %	min. 68 %

Rigidity

Modulus of elasticity E_t	Climate zone: temperate
on delivery	min. 1,800 MPa
after 10 years	min. 1,800 MPa

Strength

Tensile strength σ_M	Climate zone: temperate
on delivery	min. 40 MPa
after 10 years	min. 35 MPa

Hail resistance

	Climate zone: temperate
after 10 years	No fraction

Fire behavior

Colorless PLEXIGLAS® burns almost without smoke and produces no acutely toxic smoke gases. PLEXIGLAS® is thus considered harmless. All product types and designs do not change their combustion behavior within a 30-year period.

*AAA = Anti-adhesion Application



Explanations

Yellowing

Colorless, transparent PLEXIGLAS® now has a yellowness index of 0 to 1. Depending on the product type and design and the climate zone, the yellowness index is only 4 to 7 delta higher even after 30 years. The yellowness index is measured according to DIN 6167 on cleaned and polished specimens that have been conditioned in a normal climate (23 °C/50 % relative humidity) to a state of equilibrium. (Note: for PLEXIGLAS® multi-skin sheets, the measurement is taken at the upper skin).

Light transmission

Colorless PLEXIGLAS® now has a light transmission of up to 92 %, depending on type and design. Depending on the type and design of the product and the climate zone, the light transmission is only 2 to 15 % lower even after 30 years. The transmission factor τ_{D65} is measured according to DIN 6167 on cleaned and polished samples with a thickness of 1 mm, which are conditioned in a standard climate (23 °C/50 % relative humidity) to the state of equilibrium. The guaranteed values for colorless PLEXIGLAS® apply only to the temperate climate zone.

Rigidity

The modulus of elasticity (E_t) is determined in accordance with ISO 527-2/1B in a tensile test at 23 °C as the mean value of measurements on 5 plane-parallel specimens with thicknesses in the range from 1 to 4 mm, conditioned to equilibrium in a normal climate (23 °C/50 % relative humidity). The guaranteed values for PLEXIGLAS® apply only to the temperate climate zone.




Strength

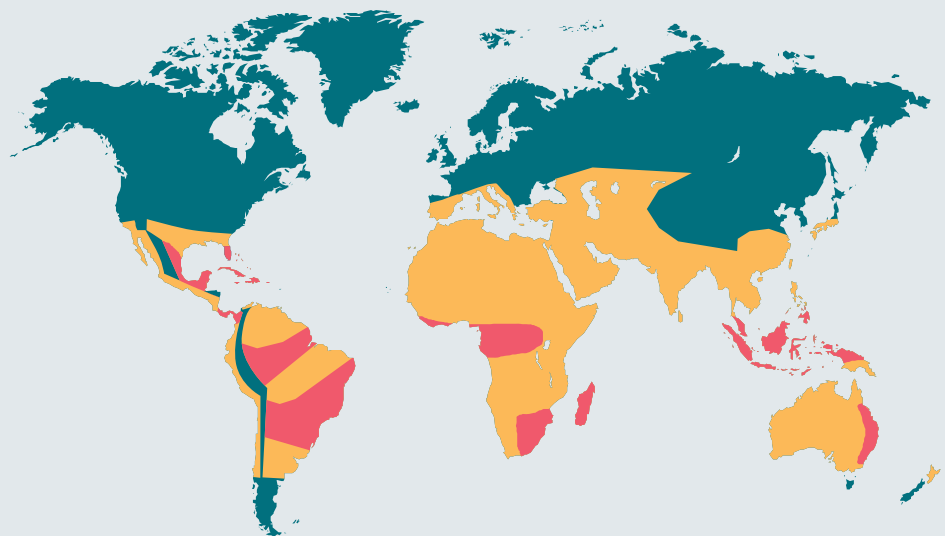
The tensile strength (σ_M) is determined in accordance with ISO 527-2/1B in a tensile test at 23 °C as the mean value of measurements on 5 plane-parallel specimens with thicknesses in the range from 1 to 4 mm, conditioned to equilibrium in a normal climate (23 °C/50 % relative humidity) The guaranteed values for PLEXIGLAS® apply only to the temperate climate zone.

Hail resistance

Breakage by hail within the meaning of this guarantee is defined as at least 5 holes at different points in the surfaces of the panels produced by 10 shots during the hail simulation test.

Climate zones

-  Temperate
-  Warm, dry
-  Warm, humid





Performing the hail simulation test: Pellets of polyamide PA 66 with a diameter of 20 mm (weight approx. 4.5 g) are propelled against the weathered surface at a speed of 21 meters per second, corresponding to a kinetic energy of 1 joule, at room temperature. The guarantee statement for PLEXIGLAS® applies only to the temperate climate zone.

Fire behavior

Light absorption by smoke is measured according to DIN 4101-1 Annex B. PLEXIGLAS® burns almost smoke-free, i.e. light absorption by smoke is < 15 %. The acute toxicity of smoke gases is measured according to DIN 53436. The guaranteed properties for PLEXIGLAS® apply to all climatic zones.

Terms of Guarantee

Guarantee conditions and exclusions

All guarantee values are determined on cleaned specimens. In the case of complicated profiles, the measured values are determined, if necessary, on flat and plane-parallel specimens, since the material values cannot be recorded otherwise, or not accurately enough. Structured semi-finished products are to be measured in original thicknesses with the structured side – or with the coarser structured side in the case of structure on both sides – facing the light source.

The products must have been stored, transported, processed, installed and used in accordance with the material. They must not have been thermally deformed or subjected to the subsequent action of harmful chemicals. Instructions on the proper application and proper care and use of our products can be found on the Internet at www.plexiglas.de and in the respective printed materials.

Guarantee period

This guarantee begins on the day of delivery to the user and ends with the dismantling of the first use, the

targeted or willful destruction or with the expiry of the guarantee period (10 or 30 years after the date of purchase). The shortest of the aforementioned deadlines shall be decisive in each case. Only the version of this guarantee statement that was valid at the time the user purchased our products is decisive for any guarantee claims. For the most current version, see www.plexiglas.de.

In case of a guarantee claim

Prerequisites for services under this guarantee are

- that the user submits an invoice from the seller, which shows the name and address of the user, the date of purchase, the complete product designation and the product quantities,
- that the guarantee case is reported to us in writing within 30 days at the latest during the term of the guarantee,
- that we are immediately given the opportunity to inspect the defect that has occurred, including its possible causes, on site or have them inspected.

Guarantee service

In the event of a guarantee claim, we will replace the defective PLEXIGLAS® product ex works for the user. If suitable replacement material is no longer manufactured by us or can not be supplied, the user will be reimbursed the original purchase price. Other or further claims arising from or in connection with this guarantee are excluded.

Consumer rights, applicable law and jurisdiction

The statutory rights of the consumer shall remain unaffected by this guarantee and shall not be limited by it in any way. This guarantee is governed by the laws of the Federal Republic of Germany in force at the time of purchase of our products by the user, to the exclusion of the referring statutes of international private law. The exclusive place of jurisdiction for claims arising from this guarantee is Darmstadt, Federal Republic of Germany.



PLEXIGLAS®

Double-skin sheet

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® = 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)

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