

SCHOTT Technical Glass Solutions GmbH	PYRANOVA[®] product specification	Issued 09/2005
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1 General

1.1 Scope of validity

These guidelines are applicable to the evaluation of the guaranteed properties of PYRANOVA[®] type laminated glass and laminated safety glass by SCHOTT Technical Glass Solutions GmbH. Evaluation of the guaranteed properties should be carried out in accordance with the test principles described in these guidelines or with standard practice.

1.2 Validity

These guidelines form part of the general conditions of sale of SCHOTT Technical Glass Solutions GmbH in force at any particular time.

2 Descriptions

2.1 Product

PYRANOVA[®] from SCHOTT Technical Glass Solutions GmbH is a fire-resistant laminated glass in accordance with DIN EN ISO 12543-1:1998 with at least one interlayer which reacts to high temperature to provide the product's fire resistance. It can also be supplied in the form of laminated safety glass to DIN EN ISO 12543-1:1998.

2.2 Product name

SCHOTT Technical Glass Solutions GmbH products in accordance with 2.1 are referred to by the name of PYRANOVA[®]. This name is followed by an indication of the fire resistance rating in minutes (15, 30, 45, 60).

2.3 Components

PYRANOVA[®] consists of at least two sheets of float glass to EN 572-2 with a nominal thickness of 3 mm plus at least one approx. 1mm thick aqueous silicate layer, which reacts to high temperature to provide the product's fire resistance.

2.4 Method of performance

The interlayer between the float glass panes foams at high temperatures to form a solid, compact mass. This expansion can cause cracking and chipping in the float glass panes. This does not, however, have any adverse effect on the guaranteed fire resistance. After being subjected to high temperatures the glass is irreversibly damaged.

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2.5 Application

PYRANOVA[®] is suitable for the manufacture of glazing units classified in accordance with DIN EN 13501-2 as regards their fire resistance rating. It is a basic principle that glass products themselves cannot be classified or described as fire-resistant. When a glass product is installed in a suitable glazing system, the assembly can be tested and classified as fire-resistant. PYRANOVA[®] is a component of a fire-resistant glazing system or a fire barrier subject to the relevant national regulations.

SCHOTT Technical Glass Solutions GmbH does not guarantee any further properties over and above the stated properties. Mechanical durability, stability, safety in use, soundproofing and energy-saving properties refer specifically to the use and are dependent on the type of application.

2.6 Physical features

2.6.1 Physical phenomena

A range of unavoidable phenomena, which can occur both in the use of PYRANOVA[®] or alternatively when it is undergoing further processing, for example to make insulating glass units, is excluded from the guaranteed properties. These include interference effects, double pane effect, anisotropic effects, condensation on the outside surfaces of the glass and wettability of the glass surfaces.

2.6.2 UV resistance

PYRANOVA[®] without UV protection must not be exposed to direct UV radiation, e.g. from UV lamps or an arrangement of strongly UV-permeable components. In the case of types with UV protection only the protected side should be exposed to the radiation. Resistance to UV radiation can be confirmed by means of a radiation test. The criterion is confirmed on the product at the time of delivery.

2.6.3 Humidity resistance

The direct influence of very high humidity (e.g. in swimming baths) calls for special precautions as regards the rebate area. The formation of condensate and standing moisture must be avoided. Resistance to moisture can be confirmed by means of a storage test. The criterion is confirmed on the product at the time of delivery.

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3 Handling

3.1 Transport, Storage, Cleaning

In view of the special properties of PYRANOVA[®], in particular the considerable weight of the glass, the recommendations and explanatory notes below must be complied with when the glass products are being transported.

In the course of transport or other handling involving movement it is possible that certain properties of PYRANOVA[®] resulting from physical causes may become visible but these should not be considered a reason for invoking the terms of the guarantee.

The glass should basically only be stored upright and separated by suitable spacing material. The spacing material and supports must be undamaged and must not contain any foreign matter. All products in the PYRANOVA[®] product range must be stored in dry conditions and must not be exposed to direct sunlight under any circumstances. This applies to both packed and unpacked individual panels and stacks of glass. Before any glazing work begins the glass products must be checked for damage. Damaged glass should not be installed.

Glazing units that have not been cleaned, irrespective of the type and degree of any soiling, are best cleaned with clean water and special glass cleaning additives. Alkaline washing solutions, acids and agents containing fluorides must not be used. Viscous matter residue such as grease should be cleaned off with spirit or isopropanol and then the glass rinsed with clean water. Cleaning the surface of glass with abrasive or coarse materials causes irreversible damage to the glass. Cloths and sponges plus the cleaning agent used must not contain any abrasive ingredients or components. The surface of glass that has come into contact with cement slurry or liquid containing cement slurry that has then come into contact with the glass must be rinsed off with clean water and must not be wiped over.

Non-compliance with these transport, cleaning and storage recommendations can result in damage to or breakage of the glass products. SCHOTT Technical Glass Solutions GmbH does not accept any responsibility for direct or consequential damage resulting therefrom.

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4 Quality assurance

The production of the PYRANOVA® product range is subject to outside supervision in accordance with the requirements of German building law.

5 Health and environmental protection

The product does not contain any substances present in concentrations that can be rated as a danger to health. When PYRANOVA® undergoes further processing the appropriate industrial safety measures applicable to working with glass should basically be complied with. Waste disposal should be carried out in consultation with the local authorities. SCHOTT Technical Glass Solutions GmbH would be happy to provide you with any further information you may require.