



vandaglas

Warranty provision

A warranty is provided by vandaglas B.V., in the following referred to as "vandaglas", on the products delivered by them, with due regard for the provisions following below.

1. General

- Per product group, besides the terms and conditions specified in this article, specific warranty terms apply that are described in the following.
- Applicable to all transactions between vandaglas and its contracting party are the general sales conditions of vandaglas, that can be consulted via the website www.vandaglas.nl. In case of contradictions between the general sales conditions of vandaglas and this warranty, the latter prevails. Terms and conditions of the contracting party are expressly excluded.
- These warranty provisions apply with regard to the original contracting party of vandaglas and are not eligible for transfer to a third party. A third party is unable to appeal to these warranty provisions. A more elaborate warranty that is granted by the contracting party of vandaglas (expressly or tacitly) to a third party does not constitute a modification or extension of this warranty of vandaglas.
- In order to be eligible for warranty, the contracting party must immediately report to vandaglas in writing any presumed defect and provide vandaglas with the opportunity to inspect the product in the situation, the application of the product, and such before it is removed, disassembled from the construction, or removed from the system.
- Claims that are submitted after the end date of the warranty period are excluded from any warranty. The warranty period for each substitute product that is delivered pursuant to these warranty provisions will never exceed the remaining warranty period of the original product.
- No warranty is granted if and for as long as the full settlement of the invoices of vandaglas has not occurred.
- The warranty comprises that vandaglas, if during the warranty term a defect occurs that falls under the product-specific warranty without one of the limitations or exclusions being applicable, provides an identical or, if the relevant model no longer is available, a replacement unit that is comparable as to performance, instead of the original delivery and that vandaglas provides a contribution for the re-installation costs of a maximum of € 15 per m² of replaced glass unit. vandaglas can also choose, instead of providing a replacement unit, to refund the invoice amount already paid that regards the value of the glass unit to be replaced. Any other liability, also including, though not solely, that for farther-reaching re-installation costs, indirect or consequential damage, is expressly excluded.
- The warranty is provided on the conditions that installation of the product meets the requirements that are set in accordance with the standards applicable at such time guarantee (as well as the references to other standards and possible appendices included therein) NEN 1279, NEN 3576, and NEN 2608, as well as the guidelines from NPR 3577 and NPR 3599 that are effective at the moment of installation. \ The contractor is supposed to be aware of all installation and maintenance regulations, as well as of the terms and conditions of vandaglas.
- This warranty can only be appealed to if:
 - The original receipt can be presented;
 - The product is not broken or cracked;
 - The product is not damaged physically or chemically;
 - The product was manipulated, stored, transported, and installed in conformity with the effective standards and regulations;
 - No wooden adjustment blocks were used for installation;
 - The product was installed and maintained in accordance with the effective standards;
 - The product has not been exposed to abnormal weather conditions;
 - The product has not been applied for industrial use;If the product was installed vertically;

- The product was not applied for exceptional purposes, that result in a higher mechanical, chemical and/or temperature load, such as – though not solely – swimming pools and car washes;
- The product has the correct glass thickness or composition according to its function or application;
- The construction it is in was carried out according to the state of the art and no structural causes pertain, such as the sagging of the building so that tension occurs in the product;
- No deformation and/or alteration of the surrounding construction pertains (also including the removal and re-installation of the product), regardless of the cause thereof;
- No mechanical causes pertain, such as external force, crushing, breakage during or after installation (also including the grinding or adjusting of the unit);
- The construction is provided with drainage or airing channels, -gaps, or -slots;
- The construction has been well maintained, for the purpose of intact, smooth sealings, free from airing and drainage holes;
- No stagnating water pertains, or pollution of the glass and construction, growth of moss or algae;
- The possible specific guidelines and instructions of vandaglas regarding processing, storage, installation, and maintenance have been properly observed.

2. Layered glass

- vandaglas provides its contracting party with a warranty for the layered glass products. This warranty comprises that during five (5) years counted from the manufacturing date of the glass, no significant delamination or visible colour changes of the PVB film will develop. Considered significant delamination is:
 - Edge delamination (detachment of the film): more than 15 mm off the edge and this over the entire perimeter;
 - Withdrawn intermediate layer (due to shrinkage of the film): more than 5 mm from the edges. What remains below these tolerances is considered inherent to lamination with PVB film and is not eligible for any warranty. The warranty does not regard any other possible deviations.
- Without prejudice to what is established in article 1 section 9 of these warranty terms, this warranty can only be appealed to if:
 - It regards a product made from glass and an intermediate layer of PVB film. Other types of intermediate layers or other products in which PVB film is incorporated are not covered by this warranty;
 - No glass composition was used with one or more textured sides;
 - All materials used that come into contact with the intermediate layer of the product are compatible with this intermediate layer, such as: spacers, sealing and gluing agents, adjustment blocks, maintenance products, etc.;
 - Fixture elements such as clamps, nuts, and hinges do not apply pressure greater than 10 n/cm².
- It is evinced by tests of the film manufacturer that no significant discolouring of the film will occur, if the glass is applied in accordance with the regulations. A very insignificant discolouring is inherent to the product. It depends on time and the degree to which the glass is exposed to discolouring factors (sunlight, UV rays). An exception is the yellow films, which are not UV-stable in standard version. In case of certain colour combinations, an orange-skin effect may develop. This is inherent to the product and is not covered by the warranty. Technical data are available upon request.

3. Insulating glass

1. vandaglas provides its contracting party a warranty on the insulation glass products whereby it guarantees that during 10 years, counted from the manufacturing date of the insulating unit, no reduction of transparency, nor a grey haze that cannot be eliminated will occur due to condensation, sedimentation on or the impairing of the glass sheets on the cavity edges as a result of a defect in the insulating glass.
2. Excluded from the warranty is all damage to the unit that is the result of:
 - The application of changes to the structure of the unit (including the attachment of film, advertising material, or the application of paint on the glass);
 - Thermal causes, that is, breakage as a result of tension in the glass that has occurred due to the local, partial heating of one of the sheets of the insulating unit, with the result that major difference in temperature occur between two zones of the glass slab; Insufficient maintenance on the surrounding structure and/or rabbet sealing.
 - For the purpose of maintenance, the OAD 2011 (maintenance on the sealing of double-glazing) is applicable, as well as NPR 3577, latest version.
3. No warranty is provided for:

4. Triple glazing

- with cavity widths of 2x18 mm,
 - with cavity widths of 2x10 mm whereby one side is shorter than 400 mm,
 - with cavity widths of 2x12 mm whereby one side is shorter than 500 mm,
 - with cavity widths of 2x15 mm of 2x16 mm whereby one side is shorter than 600 mm.
- Units with one or more sheets of patterned, matted, or wired glass;
 - Imperfections / deviations in the insulating glass unit, or in the composite parts thereof, that fall within the tolerances indicated in the Dutch standards;
 - Distortions, both in see-through and with reflections, as a result of characteristics that are inherent to the types and/or combination of glass, which include distortions as a result of tolerance, barometric pressure differences, temperature differences, and geographic differences in altitude;
 - The visibility of colour bands and/or colour patterns as a result of interference and/or anisotropy (irisation);
 - Units between which glass-in-lead, glass-in-copper, mullions or viennese mullions are installed in the cavity, in any form whatsoever.

5. Glass with an electrical component

1. vandaglas provides its contracting party a warranty on the products with an electrical component (such as, though not solely heatable glass, glass with adjustable transparency, and adjustable sun screen) in conformity with the product-specific warranty of the manufacturer. The warranty term is counted from the manufacturing date. The product-specific warranty terms are available upon request.
2. In order to be eligible for the warranty it applies expressly that the assembly and installation regulations of the manufacturer have been complied with and use has been made of the recommended electrical accessories such as switches, transformers, remote controls, etc. The glazing must be connected and commissioned by a certified electrician. Defects in electrical accessories are not eligible for warranty.

6. Glass intended for rolling equipment or in rotating constructions

For all products that are intended for inside rolling equipment or in rotating constructions a warranty term applies of 3 years, counted from the manufacturing date.

7. Fire-resistant glass

For all fire-resistant glazing a maximum warranty term applies of 5 years in conformity with the product-specific warranty of the manufacturer. The warranty term is counted from the manufacturing date. The product-specific warranty terms are available upon request.

8. Structural glazing

As an addition to the warranty provisions regarding layered glass and insulating glass (depending on which product was purchased), the following conditions apply for structural glazing:

- There must be approval from the manufacturer for the intended fixture system (including calculation backing and details) and the compatibility of the materials applied;
- The maintenance guidelines prescribed have at least been complied with and the seams must be checked annually.

9. Bent glass

For all bent glass a maximum warranty term of 5 years applies under application of the "Guideline for Thermal Bent Architectural Glass Products", BF-Datasheet 009/2011 of Bundesverband Flachglas ff. and the "Guideline to Assess the Visible Quality of Glass in Buildings". The warranty term is counted from the date of manufacturing.

Maintenance manual

It is the responsibility of the contracting party to make sure that he (or his purchaser) is aware of the applicable maintenance regulations and the proper implementation thereof. For the maintenance of fire-resistant glass, glass with electrical components, and structural glazing we refer to the product-specific maintenance regulations of the manufacturer. These maintenance regulations are available upon request.

Insulating glass

Insulating glass consists of two sheets with a space (cavity) in between. The cavity between the sheets of glass is filled with air or noble gas, generally argon. The characteristics of the insulating glass that must be maintained are:

- translucency
- transparency
- heat insulation
- acoustics insulation
- safety
- rain resistance
- air tightness
- aesthetics

Proper maintenance and correct use are a condition for retaining the entitlement to the warranty. For this reason, the conditions that are applicable to the entitlement to the warranty are addressed in this manual.

Retention of characteristics

In order to enjoy the glass for as long as possible, the characteristics of the glass must be maintained in the original state. Especially for the translucency, the transparency, and the heat insulation it is important that the sealing of the edges of the cavity is and remains in proper condition. In case of a punctured edge sealing, humidity and condensation can penetrate the cavity, resulting in the impairment of the glass. As a consequence, less light passes through and transparency is reduced. In addition, the noble gas (which in case of hr++(+)-glass contributes to insulation) can leak from the cavity. Glass with a coating may develop spots. The sealing of the edges can be impaired directly or indirectly by humidity or ultraviolet light as a result of a bad state of repair of painting and kit finishing and wood rot. In addition, extreme thermal or chemical influences, but poorly functioning turning parts as well, may be the cause of the reduction of quality of the edge sealing.

Maintenance painting and kit finishing

The paint and kit must remain in a proper state of repair. The painting prevents the penetration of humidity and the rotting of the wooden pane. The state of the interior painting is at least as important as that of the exterior painting. Because in the winter, quite a lot of water vapour is produced and this vapour wants to go outside. Poorly painted wooden panes are particularly suitable for this. Along the way, the vapour mainly condensates in the open connections of wooden mullions and sills as a result of which the wood may start rotting and also because of this the quantity of the vapour on the edge sealings of the glass may increase. The humidity in the wood of the pane may not exceed 16%. It is necessary to inspect and (let) adjust or renovate the painting and the kit (especially of the lower sills) at least once a year. The maintenance must be done with neutral products that do not react aggressively. The criterium for the necessity of restoring the joint sealing is the functioning of the kit or the dry glazing profile. If detachment is occurring or gaps are appearing in the joint sealing, humidity

enter into the rabbet. It must be checked during control whether the proper attachment of the kit or sufficient pressure from the dry glazing profile are still assured. If this is not the case, repairs must be carried out.

The restoral of the joint sealing of kit is possible by applying a triangular sealing on the existing kit sealing. To do so, the defective kit sealing is cut out with a depth of at least 3 mm. Subsequently, the adhesive surfaces are rendered dry, clean, and grease-free. The new kit sealing must be applied in such a manner that the adhesive surfaces on the glass is at least 5 mm wide. If repairs are only necessary on the lower sill, then the repair joint must also

be applied up to a height of 150 mm on the mullions.

If the adhesion of the kit sealing is totally insufficient, then the existing glass bar must be removed and after cleaning attached again, or renewed and provided with proper kit sealing again. Glazing that was originally installed with a dry glazing profile must upon restoral be installed with a corresponding system again. If the sealing no longer functions, the profile will have to be replaced by a profile with the same shape. Even if the angles do not align well, the dry glazing profiles must be replaced, as penetration of humidity in the rabbet otherwise remains possible.

Maintenance rotating parts

Poorly functioning rotating parts often are the cause of leaking in the edge sealing of insulating glass. Above all, windows and doors may not jam, must turn smoothly, and be easy to close. By pulling on (or pushing against) jammed sashes and doors, the connections between the mullions and sills are damaged, resulting in the penetration of humidity. To keep the rotating parts in proper condition, you need to regularly check hinges, levers, door handles, and locks and clean them if necessary, grease them, and (have) them adjusted.

Keep ventilation going. To drain excessive humidity in the vicinity of glazing, ventilation gaps are inserted in the window or pane on the outside, generally at the altitude of the glass bars. It is necessary to keep these gaps free from dust, dirt, and vermin.

Cleaning

Windows and panes must be cleaned at least twice a year. Not only is this required for a clean appearance, but especially to maintain the construction. In case of insufficient cleaning, the connections and edges of aluminium panes, the kit and painting finishing of wooden panes, and the surface of synthetic panes are damaged due to soiling.

It is recommended besides the glass to clean the pane, the rotating parts, the glass bars, ventilation gaps, and hinges and handles as well. As a result, the life cycle of the painting will be extended appreciably and the rotating parts will continue to function more smoothly. When cleaning the glass it must be taken into account that sand has an abrasive effect and may cause scratches on the glass. Before cleaning the glass with a sponge, it is therefore advisable to rinse or spray off or any sand that may be there with abundant water. It is important in addition not to clean the glass with abrasive or aggressive agents.

Abrasive agents can cause scratches on glass, aluminium, and synthetic materials. Aggressive agents can impair the kits, the paint coating of wooden panes, or the top layer of aluminium or synthetic panes. Also the life cycle of the edge sealing of insulating glass can be negatively affected as a result. Suitable for the cleaning of all types of windows and doors are the neutral hand dishwashing detergents (that is, not the detergents for the dishwashing machine). Always rinse with clean water.

