Specification Text Double Glass

Content

55. INTERIOR GLASS

55.00. Interior glass - general

55.00.10. Description

All supplies and works necessary to realize a finished, non-load bearing interior glass wall.

55.00.20. Reference documents

The provisions of the following documents apply:

- WTCB's TV 275: "Special constructions made of glass. Part 3: non-structural applications (interior glass walls)" (January 2021)

55.00.30. Preliminary information and measures

The construction of the glass walls will not be commenced until the architect's approval and all:

- after the completion of structural work.
- The contractor shall verify that the subgrade is sufficiently level, squared, dry, neat, stable and coherent and shall make it suitable where necessary. If visible defects may give rise to poor performance quality, the designer shall be notified.

The performer should inquire about:

- the correct height of the finished ceiling
- the presence of other wall finishes (wall tiles, paneling, etc.)
- The guidelines around fall-through and impact safety.

The contractor should coordinate his intervention with the other finishing and technical contractors. When the glass wall is installed, the technical installations and utility lines should already be in place and finished with a flat, stable side against which the glass wall can be installed.
Glass panels should be stored vertically, cushioned by soft materials to prevent damage. They are delivered using a glass trestle. Related profiles and accessories come in a distinct package.

Measurement Method:
All preparatory information and measures are considered a charge of the contract and should be included in the various unit prices.

55.00.40. Preparatory works and (detail) performances.

Implementation

- The installation of the glass wall must be conducted by a contractor or subcontractor specialized in it.
- The requirements of the manufacturer of the glass, aluminum profiles and fasteners are considered.
- The installation of the whole is done according to the contractor's proposal. At the request of the architect, the contractor will submit the necessary working drawings in 2D or 3D.
- The wall should be able to resist different loads acting on it, including impact and differential pressures.

51.02. Double glass - materials general

The construction of the glass wall consists of an aluminum double glass profile, equipped with sealing rubbers and the glass sheets. These are attached to the perimeter of the provided wall. The glass sheets form the filling for the wall. Depending on acoustic requirements and safety regulations, the appropriate type of glass can be chosen.

51.02.10. Glass panels

Implementation

The glass panels are laminated in the following versions: 66.2, 66.2A, 88.2 or 88.2A. The glass panels always come in duplicate with a standard cavity width of 83 mm- 99 mm. The cavity width can also be chosen variably with a minimum of 16 mm. The glass panels have a standard width of 900 mm. At the end of the wall, a fitting piece is placed up to 1100 mm. The height is passed on to suit the project and is maximum 3500 m high. The relationship between the maximum height and the necessary thickness of the glass are checked by the installer with the TV275.

The glass panels are supported in the glass profile and set to fit using expansion blocks. The glass panels are bonded together with an adhesive polycarbonate strip. Before the second layer of glass panels is applied, the inside of the glass panels is cleaned.

Sound insulation depends on the type of glass and the width of the cavity: standard 48 - 57 dB[1] .

51.02.11. Glass profiles

Implementation

The glass panels are held in place with aluminum profiles. This profile consists of 5 parts:

- a basic profile;
- a click profile;
- a sound-absorbing spacer;
- sealing rubbers, and;
- a swelling rubber.

The sound-dampening spacer links the two foundational profiles, maintaining a consistent distance between them. It is pre-installed. The spacer sets the width of the cavity. Its porous nature enhances the wall's acoustic insulation. It comes in black, gray, or white versions.

The sealing rubbers are prefabricated into the glass profile and connect to the glass. The swell rubber is already pre-adhered centrally along the length on the bottom of the base profile. The framing of an entire glass wall is identical along the perimeter.

The profiles are finished in a textured powder coating (RAL colors) or anodized. The base profile serves as the base that is anchored to the surroundings and in which the glass is positioned. This profile is open along the front so that the glass can be tilted into the profile. The click profile serves to anchor the glass in the base profile and to finish the open side aesthetically.

The sealing rubbers and swell rubber ensure an airtight seal. The sealing rubbers in the base and click profile can be used for glass thicknesses from 12 mm to 17 mm.

[1] measured according to NBN EN ISO 10140-2:2010.

The environment can vary 20 mm (-10 mm / +10 mm) in height and width without leaving too little overlap between the glass sheets and the glass profile.

51.02.12. Glass door

Design profiles

A specific aluminum profile is provided for hanging a door leaf. The door profile is suitable for a glass or a wooden door leaf (max. 40 mm thick). It is pre-cut to the project size and provided with a recess for the latch, possibly the deadbolt and hinges. On site, the door profile pieces can be assembled into a door frame using angle brackets and set screws.

The door profiles are equipped with a sealing rubber that fits against the door leaf.
After all the glass profiles and glass panes are installed, the door frame is placed as the last element of the glass wall. It is glued to the back of the adjacent vertical glass profiles using removable double-sided tape. The rest of the back of the vertical glass profile is finished with a cover strip. The profiles are finished in a textured powder coating (RAL colors) or anodized.

Door leaf design

The door leaf can be made of glass or wood. Glass door leaves consist of tempered glass and have a thickness of 8-10mm. The door leaf is pre-fitted with recesses depending on the type/number of hinges and lock box.

Design of lock case and handle

The design of the lock case and handle may be suggested by the supplier or chosen by the end customer. Lock case and handle are finished in the same structural powder coating (RAL colors)or anodized. At the customer's request, a cylinder lock with key can be provided.

Hinge design

The design of the hinges may be suggested by the supplier or chosen by the end customer. They have the same finish as the lock case and handle, i.e. structure powder coated (RAL colors) or anodized. If the hinges serve a glass door leaf, they are anchored to the aluminum door profile using self-drilling screws or bolts. If the hinges support a wooden door, recesses are provided in the door profile in which these hinges can be anchored. The hinges each have a minimum load-bearing capacity of 25 kg. Depending on the weight of the glass door, 3 or 4 hinges are used.