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SCHOTT
glass made of ideas

Installation and Glazing Guidelines

for Butt Joints with PYRAN® S
and PYRANOVA®



Installation and Glazing Guidelines for Butt Joints with PYRAN® S and PYRANOVA®

Introduction

This guideline contains information for the correct installation of butt joint glazing using PYRAN® S and PYRANOVA® for interior applications. Strict adherence to this guideline is an essential prerequisite for a guarantee on the part of SCHOTT Technical Glass Solutions GmbH.

In addition, it is important to follow the information contained within „Instructions for transport, storage, assembly and cleaning of safety glass from SCHOTT Technical Glass Solutions GmbH“.

Scope

Butt joint systems with PYRAN® S or PYRANOVA® join individual glass panes using a special silicone seal without the need for vertical mullions. They meet the requirements of fire-resistant classes E 30 – E 60 or EI 30 – EI 90 in accordance with EN 13501-2.

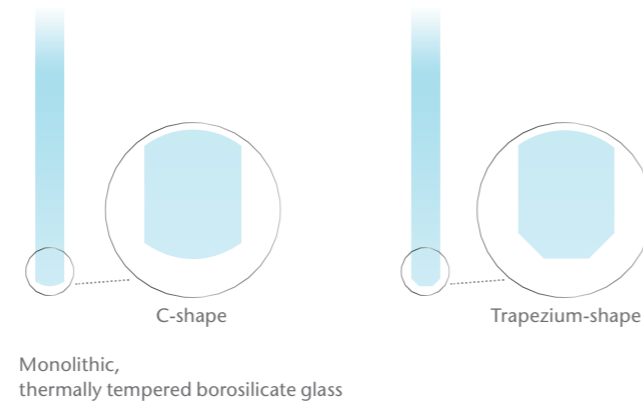
Installation and assembly

A minimum of two people are required to mount the glazing. The use of suitable lifting devices is recommended due to the weight of the panes. After assembling the frame, the panes are to be placed on suitable glazing blocks and aligned with the frame. Glazing blocks must be sized to accommodate the thickness and weight of the glass panes. The panes must be able to rest on them securely and have their weight cushioned. When installing butt joint glazing with PYRANOVA® there must always be an intact intumescent strip along the vertical edge of the joint before an additional pane is installed. After this is in place, the next pane can be set on glazing blocks. The distance between the panes should be approx. 6 mm. Spacers may be used to ensure uniform spacing between the butt joint and these must be removed before sealing as these could prevent the proper foaming up of the fire-resistant silicone in case of fire. It is essential that the panes are not installed under pressure as this could lead to the edges cracking.

Standard configuration of butt joint glazing

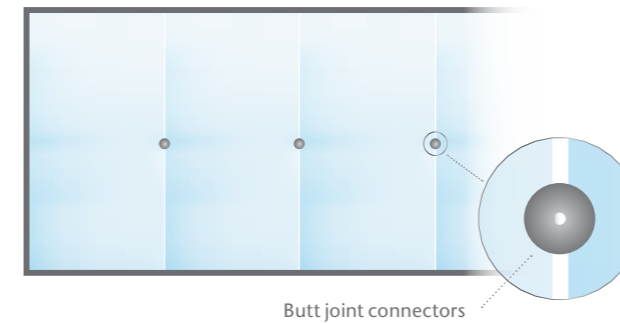
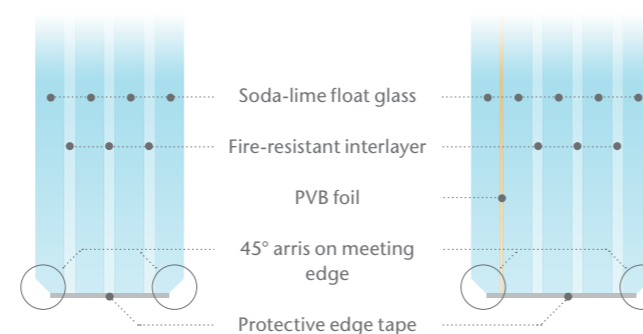
Butt joint glazing with PYRAN® S

All edges of PYRAN® S panes have a C- or Trapezium shape.

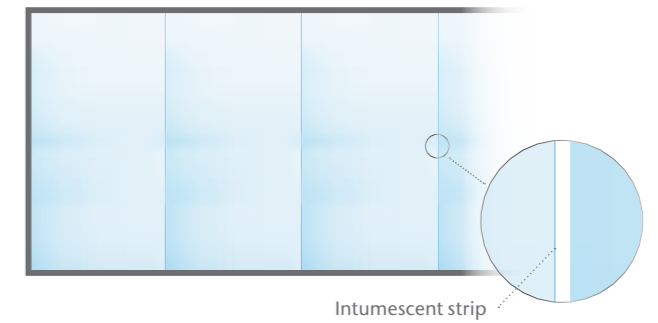


Butt joint glazing with PYRANOVA®

The meeting edges of the glass panes have a 45° arris, are fitted with a protective edge seal, and an intumescent strip at each vertical edge. It is essential that this strip remains undamaged and in place.



Butt joint glazing with PYRAN® S



Butt joint glazing with PYRANOVA®

Sealing with fire-resistant silicone

All joints must be sealed with fire-resistant silicone after the panes have been mounted. The special silicone used to seal the joints has been tested and approved for this application and is available from SCHOTT Technical Glass Solutions GmbH or other specialist glass suppliers.

For PYRAN® S butt joint glazing for fire-resistance class E30, use Sealmaster® Fireglaze or Kerafix® Firestop Putty.

For fire-resistance class E60, use Kerafix® Firestop Putty.

For PYRANOVA® butt joint glazing, use Kerafix® fire-resistant silicone.

Butt joint fire-resistant silicone meets the requirements of DIN 4102 and is a Class B1 material. It can be applied with the cartridge dispensers typically used in the glaziers' trade. All surfaces must be completely clean, dry and free from dust and grease. Metal surfaces in particular must be free from so-called drawing grease.

The minimum joint width is 5 mm and we recommended a joint width of 6 mm. The fire-resistant silicone used to fill the joint fulfills its fire-resistant requirements only after a curing period of 48 hours. This also applies to the peripheral seals along the profiles. The amount of fire-resistant silicone which is needed amounts to approx. 100 ml/m. This can increase up to 200 ml/m for PYRANOVA® depending on the thickness of the pane.

Sealing with fire-resistant silicone should take place at temperatures > 15 °C. The silicone should be filled into the joints directly with a hand gun or compressed air gun. The entire joint should be carefully filled so that the filling material protrudes slightly above the joint. Any excess material can be removed and smoothed down before it hardens. The joint is considered touch dry after a curing period of 24 hours.

The rebate is to be sealed immediately after setting the panes and sealing the vertical butt joint, in order to protect the edges from possible condensation or cleaning water. Any silicone residue that may have resulted when smoothing the seals should be removed immediately.

Equipment

The following items are required for the correct installation of butt joint glazing with PYRAN® S and PYRANOVA®.

- Warrington Certifire Certification
- Mineral wool /ceramic fiber tape for sealing between frame profile and building structure
- Glazing or sealing tape
- Plugs and screws
- Glazing blocks
- Painter's masking tape, spatula
- Cartridge gun
- Butt joint connectors (only for glazing with PYRAN® S)
- Fire resistant silicone