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**Glass in building — Glass products for  
structural sealant glazing —**

**Part 2:  
Assembly rules**

*Verre dans la construction — Produits verriers pour vitrage extérieur  
collé —*

*Partie 2: Règles de pose*



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Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 28278-2 was prepared by Technical Committee ISO/TC 160, *Glass in building*, Subcommittee SC 2, *Use considerations*.

ISO 28278 consists of the following parts, under the general title *Glass in building — Glass products for structural sealant glazing*:

- *Part 1: Supported and unsupported monolithic and multiple glazing*
- *Part 2: Assembly rules*

## Introduction

Structural sealant glazing, hereinafter referred to as SSG, is an assembly in which the glass products are fixed to the structural seal frame by means of a sealant.

The sealant must primarily be capable of withstanding the load actions applied to the glass products and transferred to the structural seal frame but can also function as a barrier against the passage of air and water through a building envelope.

Structural sealant glazing can be considered a product. It can also be considered an assembly method for glass into or onto a framework.

In the first consideration, the conditions are to be fulfilled by a manufacturer in order to place a complete structural sealant glazing and structural sealant glazing kit on the market, intended to be sold as one complete product in one (trade) transaction.

In the second consideration, the framework, glass products, sealant and accessories, materials and components can be the subject of separate, independent (trade) transactions, independently ordered, and supplied on the construction site or in a workshop where an assembler only assembles the various materials and component elements and subsequently installs the construction, all in accordance with the conditions and under the responsibility of a designer.

Only when the design of a building can be such that the glass products should be installed directly in the building using a structural glazing technique, but under controlled environmental conditions as expressed in Clause 5 of this document, should this part of ISO 28278 apply.

This means that the assembler is only responsible for the assembly, not for the design. Assembly and design are two separate tasks with their own responsibilities.

However, in a number of countries, contractors have the duty to warn architects if there is a view that something in the design is wrong. An analogy would be the case where it is assumed that the assembler has the same duty towards the designer. In order to give the assembler a feeling of what the design considerations are, and at the same time to understand what information he or she requires from the designer, design guidance is given in this part of ISO 28278 in Annex C.

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# Glass in building — Glass products for structural sealant glazing —

## Part 2: Assembly rules

### 1 Scope

This part of ISO 28278 gives guidelines for the assembly and bonding of glass elements in a frame, window, door or curtain-wall construction, or directly into the building by means of structural bonding of the glass element into or onto the framework or directly into the building.

It gives the assembler information that enable him to organize his work and comply with requirements regarding quality control.

Quality control of the assembly process is of the highest importance. This part of ISO 28278 provides the minimum requirements for acceptable quality control of the process of structural sealant glazing (SSG) on a single project. The annexes contained at the end of this part of ISO 28278 provide the methods to ensure proper application and documentation for a safe and weatherproof glazing assembly product.

This process is intended to be applicable to most SSG projects. The project testing on metal substrates and glass products will determine proper surface preparation and installation instructions.

These rules do not apply to the adhesion or durability of the paint finishes or glass products. This is not intended to be a durability test requirement for the paint and glass products commonly used in the SSG process.

The structural, weatherproofing and sealant products which are commonly used in structural glazing applications are those based on organosiloxane, "silicone" polymers.

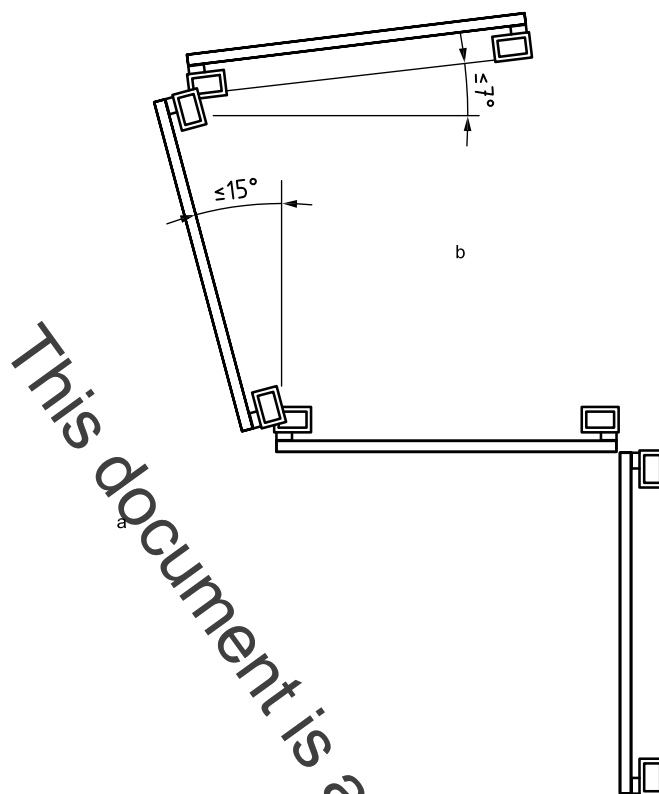
This part of ISO 28278 does not preclude the use of other sealant types, where these can demonstrate suitability for service according to this part of ISO 28278 and when they are used following the recommendations of the sealant manufacturer.

Supports to be taken into consideration shall be only metallic substrates, uncoated glass, coated glass and ceramic frit enamelled glass.

This part of ISO 28278 relates to SSG systems for use in façades and roofs, or parts of them, with glazing with slopes as shown in Figure 1.

Façades with an inclination of less than 15° from the vertical are considered vertical façades.

If the slope to the outer side has an inclination above 50°, the glass is considered unsupported glass.



**Key**

- a Outer side.
- b Inner side.

**Figure 1 — Slopes and glass positions**

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4892-2, *Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc lamps*

ISO 8339, *Building construction — Sealants — Determination of tensile properties (Extension to break)*

ISO 11600, *Building construction — Jointing products — Classification and requirements for sealants*

ISO 28278-1:—<sup>1)</sup>, *Glass in Building — Glass products for structural sealant glazing — Part 1: Supported and unsupported monolithic and multiple glazing*

ASTM C794, *Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants*

EN 28339, *Building construction. Jointing products. Sealants. Determination of tensile properties*

1) To be published.