



# SLOVENSKI STANDARD

## kSIST FprEN 15682-1:2013

01-februar-2013

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### Steklo v gradbeništvu - HS-preskus kaljenega zemljoalkalijskega silikatnega varnostnega stekla - 1. del: Definicije in opis

Glass in building - Heat soaked thermally toughened alkaline earth silicate safety glass - Part 1: Definition and description

Glas im Bauwesen - Heißgelagertes thermisch vorgespanntes Erdalkali-Silicat-Einscheibensicherheitsglas - Teil 1: Definition und Beschreibung

Verre dans la construction - Verre de silicate alcalinoterreux de sécurité trempé et traité Heat Soak - Partie 1 : Définition et description

**Ta slovenski standard je istoveten z: FprEN 15682-1**

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#### **ICS:**

81.040.20      Steklo v gradbeništvu      Glass in building

**kSIST FprEN 15682-1:2013**      **en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
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**FINAL DRAFT**  
**FprEN 15682-1**

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English Version

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Glas im Bauwesen - Heißgelagertes thermisch vorgespanntes Erdalkali-Silicat-Einscheibensicherheitsglas - Teil 1: Definition und Beschreibung

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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**FprEN 15682-1:2012 (E)****Foreword**

This document (FprEN 15682-1:2012) has been prepared by Technical Committee CEN/TC 129 “Glass in building”, the secretariat of which is held by NBN.

This document is currently submitted to the Unique Acceptance Procedure.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

EN 15682 is composed of the following parts:

- FprEN 15682-1, *Glass in building — Heat soaked thermally toughened alkaline earth silicate safety glass — Part 1: Definition and description*;
- FprEN 15682-2, *Glass in building — Heat soaked thermally toughened alkaline earth silicate safety glass — Part 2: Evaluation of conformity/Product standard*.

## Introduction

Heat soaked thermally toughened alkaline earth silicate safety glass has a safer breakage behaviour when compared with annealed glass. It also has a known level of residual risk of spontaneous breakage arising from the possible presence of critical nickel sulphide (NiS) inclusions in the thermally toughened alkaline earth silicate glass.

NOTE 1 In this case it is about a statistical mean out of a big quantity of glass. It is impossible to determine separated subjects from it for a building where definitely no "break" produced by NiS occurs. The breaking of glass caused by other influences is not included herewith.

When used to offer protection under accidental human impact, heat soaked thermally toughened alkaline earth silicate safety glass also should be classified according to EN 12600.

NOTE 2 CEN/TC 129/WG 8 is producing standards for the determination of the design strength of glass and is preparing a design method.

## FprEN 15682-1:2012 (E)

### 1 Scope

This European Standard specifies the heat soak process system together with tolerances flatness, edgework, fragmentation and physical and mechanical characteristics of monolithic flat heat soaked thermally toughened alkaline earth silicate safety glass for use in buildings. Information on curved heat soak thermally toughened alkaline earth silicate safety glass is given in Annex B, but this product does not form part of this document.

Other requirements, not specified in this document, can apply to heat soaked thermally toughened alkaline earth silicate safety glass which is incorporated into assemblies, e.g. laminated glass or insulating units, or undergo an additional treatment, e.g. coating. The additional requirements are specified in the appropriate product standard FprEN 15682-2:2012; in this case, heat soaked thermally toughened alkaline earth silicate glass does not lose its mechanical or thermal characteristics.

### 2 Normative references

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

EN 1096-1, *Glass in building — Coated glass — Part 1: Definitions and classification*

EN 14178-1, *Glass in building — Basic alkaline earth silicate glass products — Part 1: Float glass*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply:

**3.1**  
**heat soaked thermally toughened alkaline earth silicate safety glass**  
glass within which a permanent surface compressive stress has been induced in order to give it greatly increased resistance to mechanical and thermal stress and prescribed fragmentation characteristics and which has a known level of residual risk of spontaneous breakage due to the presence of critical nickel sulphide (NiS) inclusions

Note 1 to entry: The mechanical properties, i.e. thermal durability and mechanical strength, and safety properties, i.e. fragmentation characteristics, are generated by the level of surface compression. These properties are not size dependent.

**3.2**  
**residual risk**  
statistical risk of spontaneous breakage of heat soaked thermally toughened alkaline earth silicate safety glass due to the presence of critical nickel sulphide inclusions

**3.3**  
**flat heat soaked thermally toughened alkaline earth silicate safety glass**  
heat soaked thermally toughened alkaline earth silicate safety glass that has not been given a previously determined profile during manufacture

**3.4**  
**heat soaked enamelled thermally toughened alkaline earth silicate safety glass**  
heat soaked thermally toughened alkaline earth silicate safety glass which has a ceramic frit fired into the surface during the toughening process becoming an integral part of the glass after toughening

**3.5**  
**horizontal toughening**  
process in which the glass is supported on horizontal rollers