SLOVENSKI STANDARD
kSIST FprEN 673:2010

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Steklo v stavbah - Določevanje toplotne prehodnosti (vrednost U) - Računska metoda

Glass in building - Determination of thermal transmittance (U value) - Calculation method

Glas im Bauwesen - Bestimmung des U-Wertes (Wärmedurchgangskoeffizient) - Berechnungsverfahren

Verre dans la construction - Détermination du coefficient de transmission thermique, U - Méthode de calcul

Ta slovenski standard je istoveten z: **FprEN 673**

ICS:

81.040.20	Steklo v gradbeništvu	Glass in building

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EUROPEAN STANDARD

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Will supersede EN 673:1997

English Version

Glass in building - Determination of thermal transmittance (U value) - Calculation method

Verre dans la construction - Détermination du coefficient de transmission thermique, U - Méthode de calcul

Glas im Bauwesen - Bestimmung des U-Wertes (Wärmedurchgangskoeffizient) - Berechnungsverfahren

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If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Contents

Page

Foreword

This document (FprEN 673:2010) 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 will supersede EN 673:1997.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

Introduction

CEN/TC 129/WG9 "Light and energy transmission, thermal insulation" prepared a working draft based on the document ISO/DIS 10292, "Thermal insulation of glazing: Calculation rules for determining the steady state *U* value of double or multiple glazing", document that was prepared by ISO/TC 160, "Glass in building". This was published in 1997 as EN 673.

This edition is a revision of EN 673:1997. The main change in this edition is that the internal and external heat transfer coefficients have been amended slightly to avoid any ambiguities regarding rounding of intermediate values. The original Annex on the determination of emissivity has been removed and reference is made to EN 12898. Other changes include the incorporation of amendments A1 and A2 to EN 673:1997 and general improvements to the text to aid understanding.

1 Scope

This European Standard specifies a calculation method to determine the thermal transmittance of glazing with flat and parallel surfaces.

This European Standard applies to uncoated glass (including glass with structured surfaces, e.g. patterned glass), coated glass and materials not transparent in the far infrared which is the case for soda lime glass products, borosilicate glass and glass ceramic. It applies also to multiple glazing comprising such glasses and/or materials. It does not apply to multiple glazing which include in the gas space sheets or foils that are far infrared transparent. The procedure specified in this European Standard determines the *U* value[1)] (thermal transmittance) in the central area of glazing.

The edge effects due to the thermal bridge through the spacer of a sealed glazing unit or through the window frame are not included. Furthermore, energy transfer due to solar radiation is not taken into account. The effects of Georgian and other bars are excluded from the scope of this European Standard.

The Standard for the calculation of the overall *U* value of windows, doors and shutters (see A.1) gives normative reference to the *U* value calculated for the glazing components according to this standard.

For the purpose of product comparison, a vertical position of the glazing is specified. In addition, *U* values are calculated using the same procedure for other purposes, in particular for predicting:

— heat loss through glazing;

— conduction heat gains in summer;

— condensation on glazing surfaces;

— the effect of the absorbed solar radiation in determining the solar factor (see Clause 2).

Reference should be made to [3], [4] and [5] or other European Standards dealing with heat loss calculations for the application of glazing *U* values determined by this standard.

A procedure for the determination of emissivity is given in EN 12898.

1) In some countries the symbol *k* has been used hitherto.