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Title: Draft BS EN 16613 Glass in building - Laminated glass and laminated safety glass - Determination of interlayer mechanical properties

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Introduction

This draft standard is based on European discussions in which the UK has taken an active part. Your comments on this draft are welcome and will assist in the preparation of the consequent British Standard. Comment is particularly welcome on national, legislative or similar deviations that may be necessary.

Even if this draft standard is not approved by the UK, if it receives the necessary support in Europe, the UK will be obliged to publish the official English Language text unchanged as a British Standard and to withdraw any conflicting standard.

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1	2	(3)	4	5	(6)	(7)
MB	**Clause No./ Subclause No./Annex** (e.g. 3.1)	**Paragraph/ Figure/ Table/Note**	**Type of com-ment**	**Commend (justification for change) by the MB**	**Proposed change by the MB**	**Secretariat observations on each comment submitted**
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 16613

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English Version

Glass in building - Laminated glass and laminated safety glass - Determination of interlayer mechanical properties

Glas im Bauwesen - Verbundglas und Verbundsicherheitsglas - Bestimmung der mechanischen Eigenschaften von Zwischenschichten

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 129.

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.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (prEN 16613:2013) 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 CEN Enquiry.

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

Introduction

The purpose of this European Standard is to provide the viscoelastic properties of interlayer materials in order that calculations for the load resistance of laminated glass panes can be undertaken.

In addition, this European Standard includes a procedure for categorising the interlayer materials into a families, which can be associated with shear transfer coefficients which are used in a simplified calculation method.

NOTE CEN/TC 129/WG 8 "Mechanical strength" is preparing a draft which includes the simplified calculation method [1].

1 Scope

This European Standard specifies a test method for determining the mechanical viscoelastic properties of interlayer materials. The interlayers under examination are those used in the production of laminated glass and/or laminated safety glass. The interlayer properties are needed in order to determine the load resistance of laminated glass as part of a general calculation method for the load resistance of glass.

NOTE CEN/TC 129/WG 8 "Mechanical strength" is preparing a draft for the calculation method [1].

From the tensile modulus in particular conditions of temperature and load duration, an interlayer can be placed into a family that relates to a specific interlayer shear transfer coefficient, ω. This value can be used in a simplified calculation method.

An informative annex explains the background to the determination of families relating to a specific interlayer shear transfer coefficient.

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 1288-3, *Glass in building - Determination of the bending strength of glass - Part 3: Test with specimen supported at two points (four point bending)*

ISO 6721-1, *Plastics – Determination of mechanical dynamic properties – Part 1: General principles*

ISO 6721-4, *Plastics – Determination of mechanical dynamic properties – Part 4: Tensile vibration – Non-resonance method*

ISO 6721-11, *Plastics – Determination of mechanical dynamic properties – Part 11: Glass transition temperature*

3 Terms and definitions

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

3.1
glass transition temperature
interval of temperature in which a material changes from a rubbery state to a solid state

3.2
interlayer shear transfer coefficient
coefficient between 0 and 1 describing the ability of an interlayer material to transfer shear forces between the glass plies of a laminated glass plate when submitted to bending

3.3
stiffness family
group of interlayers having similar properties for the temperature range and load durations considered

3.4
vitreous polymer
polymer presenting a glass transition temperature in the range of building applications