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

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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# EUROPEAN STANDARD
# NORME EUROPÉENNE
# EUROPÄISCHE NORM

# EN 16613

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English Version

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

Verre dans la construction - Verre feuilleté et verre feuilleté de sécurité - Détermination des propriétés mécaniques d'un intercalaire

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

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**



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# European foreword

This document (EN 16613:2019) has been prepared by Technical Committee CEN/TC 129 “Glass in building”, the secretariat of which is held by NBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2020 and conflicting national standards shall be withdrawn at the latest by April 2020.

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# Introduction

The purpose of this document 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 document includes a procedure for categorizing the interlayer materials into families, which can be associated with shear transfer coefficients which are used in a simplified calculation method according to EN 16612.

# 1 Scope

This document 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 viscoelastic properties are needed in order to determine the load resistance of laminated glass.

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, $\omega$. This value can be used in the simplified calculation method described in EN 16612.

Informative Annex D explains the background to the determination of families relating to a specific interlayer shear transfer coefficient.

# 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

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)*

EN 16612, *Glass in building – Determination of the lateral load resistance of glass panes by calculation*

EN ISO 6721-1, *Plastics — Determination of dynamic mechanical properties — Part 1: General principles (ISO 6721-1)*

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

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