SLOVENSKI STANDARD
SIST EN 846-11:2001

01-februar-2001

Metode preskušanja dodatnih komponent zidovine - 11. del: Ugotavljanje mer in ukrivljenosti preklad

Methods of test for ancillary components for masonry - Part 11: Determination of dimensions and bow of lintels

Prüfverfahren für Ergänzungsbauteile für Mauerwerk - Teil 11: Bestimmung der Maße und der Überhöhung von Stürzen

Méthodes d'essai des composants accessoires de maçonnerie - Partie 11: Détermination des dimensions et de la rectitude ou de la courbure des linteaux

Ta slovenski standard je istoveten z: **EN 846-11:2000**

ICS:

91.080.30	Zidane konstrukcije	Masonry

SIST EN 846-11:2001 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 846-11

February 2000

ICS 91.060.10; 91.080.30

English version

Methods of test for ancillary components for masonry - Part 11: Determination of dimensions and bow of lintels

Méthodes d'essai des composants accessoires de maçonnerie - Partie 11: Détermination des dimensions et de la rectitude ou de la courbure des linteaux

Prüfverfahren für Ergänzungsbauteile für Mauerwerk - Teil 11: Bestimmung der Maße und der Überhöhung von Stürzen

This European Standard was approved by CEN on 1 January 2000.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Ref. No. EN 846-11:2000 E

Contents

Page

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 125, Masonry, the Secretariat of which is held by BSI.

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 August 2000, and conflicting national standards shall be withdrawn at the latest by September 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies methods for determining the dimensions and straightness or bow of single span, single, combined or the prefabricated component of composite lintels conforming with prEN 845-2:1992.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

prEN 845-2:1992 Specification for ancillary components for masonry - Part 2: Lintels.

3 Principle

Specimen lintels or the constituent prefabricated components of lintels, e.g. components forming the tension zone, are measured in order to determine their overall length, width and height as well as their bow. For lintels of non-rectangular cross-sections a diagram is made showing their configuration and dimensions.

4 Definitions

For the purposes of this standard, the following definitions apply.

4.1 bow any deviation from the intended profile (shape) of the lintel. If the lintel is intended to be straight it is the deviation from straightness. If the lintel is designed to have a camber (curvature in elevation) or a curvature in plan it is the deviation from the intended shape

Note: Camber/curvature should be detailed in the manufacturer's specification and the bow is the deviation from the intended shape.

5 Apparatus

5.1 Steel measuring tape, steel rule or other device, capable of measuring the length of the lintel and accurate to ±1 mm.

5.2 Steel measuring tape, steel rule or other device, capable of measuring the width and height of the lintel and accurate to ±0,5 mm.

5.3 Metal straight edge of length more than the length of the lintel.

6 Procedure

6.1 General

Deformed edges of the lintel, due for instance to burrs, shall be removed to form clean non-deformed edges before making any measurements.

The measurements shall be those which represent the maximum and minimum overall length, the overall cross-section and the bow.

> Note: Although there is no requirement for squareness of the ends of lintels, any lack of squareness needs to be identified in order to determine where the measurements needs to be made to assess the maximum and minimum lengths.

6.2 Length

Place nominally straight lintels in a convenient position to measure the maximum and minimum overall length parallel with the longitudinal axis of the lintel and record the dimension to the nearest 2 mm. For lintels designed to have a camber and having square ends, i.e. end faces in the plane of the radius of curvature, measure the outside maximum length (maximum chord) and the inside minimum length (minimum chord) and average the two values.

6.3 Width and height

Measure the overall width and height at the two ends and at mid-span. At each position record the maximum overall dimension between the opposite surfaces to the nearest 1 mm. The arithmetic mean of the three dimensions rounded to the nearest 1 mm in each case shall be the lintel width and the lintel height.

For non-rectangular cross-sections provide a diagram showing the configuration and make additional measurements at the same three positions and report the arithmetic mean of the values measured as the dimensions of the configuration.

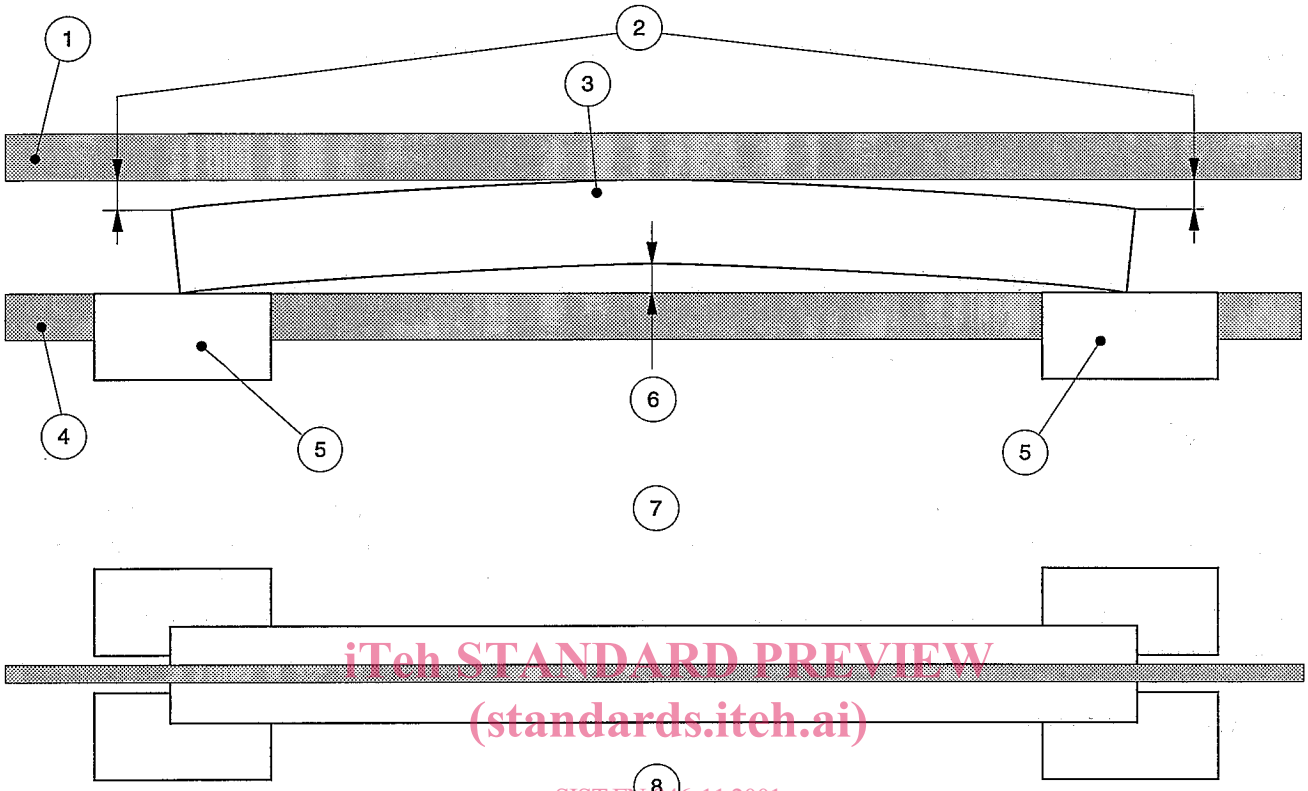
6.4 Straightness or bow

Simply support the lintel, in the position and manner it will be used in practice and support it at either end, but without any superimposed loads as shown in Figure 1 and measure the deviation from the intended shape in both the vertical and horizontal planes. The support blocks at either end should have a central opening to allow insertion of the straight edge (5.3) to measure the bottom surface.

For concave surfaces, bring the straight edge into contact with the ends of the lintel. It shall be positioned parallel with the longitudinal axis at mid-position of the surface. Measure and record the maximum perpendicular distance between the edge nearest the lintel and the lintel surface to an accuracy of 0,5 mm.

For convex surfaces bring the straight edge into contact with the crown of the convex surface and record the difference between the perpendicular distances, between the edge and the adjacent surface of the lintel at either end, to an accuracy of 0,5 mm. Take the average value of the two measurements.

Measure the top, bottom and two sides of the lintel in this manner.



Key

1 Position of upper straight edge
2 Measurement position for convex edges
3 Lintel
4 Position of lower straight edge
5 Support block
6 Measurement position for concave edges
7 Elevation
8 Plan

Figure 1 - Measurement of the bow of lintels

7 Expression and evaluation of results

Record the greater of two top and bottom measurements as the bow in the vertical direction with respect to the position that the lintel will be used in practice. Record the greater of the two side measurements as the bow in the horizontal direction with respect to the position that the lintel will be used in practice. Divide these values by the lintel length and express them as a percentage.