Irish Standard
I.S. EN 846-6:2012

Methods of test for ancillary components for masonry - Part 6: Determination of tensile and compressive load capacity and load displacement characteristics of wall ties (single end test)

I.S. EN 846-6:2012

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

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SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces:
EN 846-6:2000

This document is based on:
EN 846-6:2012

Published:
20 August, 2012

This document was published under the authority of the NSAI and comes into effect on:
20 August, 2012

ICS number:
91.080.30

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Údarás um Chaighdeáin Náisiúnta na hÉireann

I.S. EN 846-6:2012

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 846-6

August 2012

ICS 91.080.30

Supersedes EN 846-6:2000

English Version

Methods of test for ancillary components for masonry - Part 6: Determination of tensile and compressive load capacity and load displacement characteristics of wall ties (single end test)

Méthodes d'essai pour composants accessoires de maçonnerie - Partie 6: Détermination de la résistance de traction et en compression et de la rigidité d'attaches murales (essai d'extrémité simple)

Prüfverfahren für Ergänzungsbauteile für Mauerwerk - Teil 6: Bestimmung der Zug- und Drucktragfähigkeit sowie der Steifigkeit von Mauerankern (Einseitige Prüfung)

This European Standard was approved by CEN on 11 February 2012.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 846-6:2012: E

Contents

Page

Foreword

This document (EN 846-6:2012) 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of an identical text or by endorsement, at the latest by February 2013, and conflicting national standards shall be withdrawn at the latest by February 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 846-6:2000.

The principal changes in this document form the previous edition relate to the number of ties to be tested, the location of the clamp during testing and the treatment of slope and movement tolerant ties. Ties are to now be placed at the minimum declared embedment length rather than a length calculated from the tie length and design cavity width. Ten ties are tested in tension and ten in compression. In the compression tests the ties are loaded over an extended cavity, or alternatively provision is made for evaluating the cavity section by calculation. Where ties are designed to tolerate either an induced slope or movement then prior to test they are cycled fifty times through the slope or movement for which they have been designed.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies a method for determining the tensile and compressive load capacity and load displacement characteristics of wall ties screwed, nailed, grouted or otherwise attached to frame elements or to inner leaf materials. The test is intended for ties for connecting masonry leaves to frame structures and to the inner leaves of cavity walls other than by embedding the inner connection in a mortar joint.

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 300, *Oriented Strand Boards (OSB) — Definitions, classification and specifications*

EN 338, *Structural timber — Strength classes*

EN 771-1, *Specification for masonry units — Part 1: Clay masonry units*

EN 771-2, *Specification for masonry units — Part 2: Calcium silicate masonry units*

EN 771-3, *Specification for masonry units — Part 3: Aggregate concrete masonry units (Dense and lightweight aggregates)*

EN 771-4, *Specification for masonry units — Part 4: Autoclaved aerated concrete masonry units*

EN 771-5, *Specification for masonry units — Part 5: Manufactured stone masonry units*

EN 771-6, *Specification for masonry units — Part 6: Natural stone masonry units*

EN 772-1, *Methods of test for masonry units — Part 1: Determination of compressive strength*

EN 772-10, *Methods of test for masonry units — Part 10: Determination of moisture content of calcium silicate and autoclaved aerated concrete units*

EN 845-1, *Specification for ancillary components for masonry — Part 1: Ties, tension straps, hangers and brackets*

EN 206-1, *Concrete — Specification performance, production and conformity*

3 Principle

The tie is screwed, nailed, grouted or attached using other devices such as keys in slots, to a representative section of the frame element or inner leaf material using normal site techniques. The tie is then subjected to tension or compression until failure occurs.