



NSAI
Standards

Irish Standard
I.S. EN 846-7:2012

Methods of test for ancillary components for masonry - Part 7: Determination of shear load capacity and load displacement characteristics of shear ties and slip ties (couplet test for mortar joint connections)

I.S. EN 846-7:2012

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

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English Version

Methods of test for ancillary components for masonry - Part 7:
Determination of shear load capacity and load displacement
characteristics of shear ties and slip ties (couplet test for mortar
joint connections)

Méthodes d'essai des composants accessoires de
maçonnerie - Partie 7: Détermination de la charge
admissible au cisaillement et des caractéristiques effort-
déformation des attaches résistant au cisaillement et des
attaches de glissement (essai dans un joint de mortier
entre deux éléments)

Prüfverfahren für Ergänzungsbauteile für Mauerwerk - Teil
7: Bestimmung der Schubtragfähigkeit und der Steifigkeit
von Mauerverbindern (Steinpaar-Prüfung in Mörtelfugen)

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

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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Foreword

This document (EN 846-7:2012) 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of an identical text or by endorsement, at the latest by February 2013, and conflicting national standards shall be withdrawn at the latest by February 2013.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 846-7:2000.

There are no major changes from the previous edition although the curing period for the different types of mortar has been clarified.

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 the couplet method for determining the horizontal and vertical shear load resistance and load-deflection behaviour of shear ties and slip ties embedded in mortar joints. The test is intended for ties for connecting together two leaves of masonry forming a collar jointed wall or two walls at right angles. It also applies to ties used for connecting the edges of infill panel walls to frames which encircle them.

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 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 998-2, *Specification for mortar for masonry — Part 2: Masonry mortar*

EN 1015-3, *Methods of test for mortar for masonry — Part 3: Determination of consistence of fresh mortar (by flow table)*

EN 1015-7, *Methods of test for mortar for masonry — Part 7: Determination of air content of fresh mortar*

EN 1015-11, *Methods of test for mortar for masonry — Part 11: Determination of flexural and compressive strength of hardened mortar*

3 Principle

One end of the tie is embedded in a mortar joint, typical of the type for which the tie is specified, between a pair (couplet) of typical masonry units. The tie is then clamped at its free end and subjected to shear against a reactive support for the couplet. Slip ties may be tested by the same method.

NOTE The method measures the capacity of the tie alone and does not measure the contribution to the total shear resistance given by two masonry faces separated by a vertical mortar joint. This value should be obtained by walette tests if required.

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