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BS EN 16497-1:2015



BSI Standards Publication

Chimneys — Concrete System Chimneys

Part 1: Non-balanced flue applications

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This British Standard is the UK implementation of EN 16497-1:2015.

The UK participation in its preparation was entrusted to Technical Committee B/506/4, Chimneys and their components having inner linings of concrete.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Chimneys - Concrete System Chimneys - Part 1: Non-balanced flue applications

Conduits de fumée - Conduits-systèmes de fumée en béton
- Partie 1: Applications non équilibrées

Abgasanlagen - System-Abgasanlagen aus Beton - Teil 1:
Raumluftabhängige Anwendungen

This European Standard was approved by CEN on 29 November 2014.

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.

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Foreword

This document (EN 16497-1:2015) has been prepared by Technical Committee CEN/TC 166 "Chimneys", the secretariat of which is held by ASI.

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of an identical text or by endorsement, at the latest by August 2015 and conflicting national standards shall be withdrawn at the latest by November 2016.

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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Regulations.

For relationship with EU Regulations, see informative Annex ZA, which is an integral part of this document.

This standard is one of a series of co-ordinated standards dealing with specification, design, and testing of chimneys, both single and multi-wall.

The co-ordinated package of standards is further divided by material of construction and this European Standard is one of a series of specifications and execution documents dealing with design and installation of concrete chimney products and systems.

The standards in this series for concrete chimney products and systems are:

- EN 1857, *Chimneys — Components — Concrete flue liners*
- EN 1858, *Chimneys — Components — Concrete flue blocks*
- EN 12446, *Chimneys — Components — Concrete outer wall elements*
- CEN/TS 16134, *Chimney terminals — General requirements and material independent test methods*
- EN 16497-1, *Chimneys — Concrete system chimneys — Part 1: Non-balanced flue applications*
- prEN 16497-2, *Chimneys — Concrete system chimneys — Part 2: Balanced flue applications*

NOTE A chimney in accordance with EN 16497-1 can also be used for room-sealed applications using a separate combustion air supply in a non-balanced flue configuration.

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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.

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1 Scope

This European Standard specifies the materials and the dimensional and performance requirements for straight concrete system chimneys for non-balanced flue applications comprising a concrete flue liner and a combination of compatible chimney components, which may be concrete flue blocks (see Clause 4), obtained or specified from one manufacturing source with product responsibility for the whole chimney.

This European Standard does not apply to concrete system chimneys with back ventilation.

This European Standard does not cover products designated wet (W) in conjunction with corrosion class 3.

This European Standard also applies to concrete system chimneys constructed from storey-height elements and flue blocks reinforced for handling.

NOTE Any reference to the term flue blocks implies both flue blocks and their fittings, except where otherwise indicated.

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 1443:2003, *Chimneys - General requirements*

EN 13216-1, *Chimneys - Test methods for system chimneys - Part 1: General test methods*

EN 13384-1, *Chimneys - Thermal and fluid dynamic calculation methods - Part 1: Chimneys serving one appliance*

EN 14297:2004, *Chimneys - Freeze-thaw resistance test method for chimney products*

EN ISO 7500-1, *Metallic materials - Verification of static uniaxial testing machines - Part 1: Tension/compression testing machines - Verification and calibration of the force-measuring system (ISO 7500-1)*

ISO 2859-1, *Sampling procedures for inspection by attributes - Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1443:2003 and the following apply.

3.1

flue block fitting

element fitted to the flue block

Note 1 to entry: Such as an access opening or offset.

3.2

hollow wall flue block

flue block having vertical cavities

Note 1 to entry: Cavities may pass through both ends of the block.