

ICS 91.060.40

English Version

Chimney terminals - General requirements and material independent test methods

Terminaux de conduits de fumée - Exigences générales et méthodes d'essai pour tous matériaux

Schornsteinaufsätze - Allgemeine Anforderungen und werkstoffunabhängige Prüfverfahren

This Technical Specification (CEN/TS) was approved by CEN on 30 November 2010 for provisional application.

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Contents

Page

Foreword.....	5
Introduction	6
1 Scope	7
2 Normative references	7
3 Terms and definitions	7
4 Manufacturers declaration for a type test	8
5 Characteristics of a terminal	9
5.1 General.....	9
5.2 Types of terminals	9
5.2.1 Type I.....	9
5.2.2 Type II.....	9
5.2.3 Type III.....	9
5.3 Wind direction characteristics	9
6 Dimensions, shapes and tolerances.....	10
7 Requirements	10
7.1 General.....	10
7.2 Mechanical resistance and stability.....	10
7.3 Thermal behaviour.....	10
7.4 Hygiene, health and environment	10
7.4.1 Gas tightness	10
7.4.2 Corrosion resistance	11
7.5 Cleaning and inspection	11
7.6 Flow resistance of terminals Type I, II and III	11
7.7 Aerodynamic properties of terminals Type II and III.....	11
7.7.1 Terminal Type II.....	11
7.7.2 Terminal Type III.....	11
7.8 Rain water ingress	12
7.9 Icing behaviour	12
7.10 Condensate resistance	12
8 Characteristics of the terminal.....	12
8.1 Flow resistance.....	12
8.1.1 Flue duct for terminals Type I, II, III.....	12
8.1.2 Air duct for terminal Type III.....	13
8.2 Aerodynamic properties	13
8.2.1 Wind velocity pressure of a terminal Type II – for non room-sealed and room-sealed appliances	13
8.2.2 Wind velocity pressure of a terminal, Type III – for balanced flue applications	14
8.2.3 Recirculation factor of a terminal, Type III, (for room sealed appliances).....	14
8.3 Rainwater ingress	15
8.4 Icing behaviour	15
8.5 Freeze-thaw behaviour.....	15
9 Designation	15
10 Product information.....	15
10.1 Manufacturers instructions	15
10.2 Information to be included.....	16
10.2.1 General.....	16

10.2.2	Terminal Type I	16
10.2.3	Terminal Type II	16
10.2.4	Terminal Type III	16
Annex A	(normative) Test methods for flow resistance	17
A.1	For terminal Type I, II and III, test method for flow resistance	17
A.1.1	Test apparatus	17
A.1.2	Test sample	17
A.1.3	Measurement parameters	17
A.1.4	Test condition	18
A.1.5	Test procedure	18
A.1.6	Test result	18
Annex B	(normative) Test methods for wind effects	21
B.1	For terminal Type II, test method for wind velocity pressure	21
B.1.1	Test apparatus	21
B.1.2	Test sample	21
B.1.3	Measurement parameters	21
B.1.4	Test condition	22
B.1.5	Test procedure	22
B.1.6	Test result	22
B.2	For a terminal Type III, test method for wind velocity pressure	22
B.2.1	Test apparatus	22
B.2.2	Test sample	23
B.2.3	Measurement parameters	23
B.2.4	Test condition	24
B.2.5	Test procedure	24
B.2.6	Test result	24
Annex C	(normative) Test methods for wind effects on recirculation	25
C.1	For terminal Type III, test method for recirculation	25
C.1.1	Test apparatus	25
C.1.2	Test sample	25
C.1.3	Measurement parameters	25
C.1.4	Test condition	26
C.1.5	Test procedure	26
C.1.6	Test result	26
Annex D	(normative) Test method for rain water ingress	27
D.1	For terminal Type Ib, II and III, test method without wind	27
D.1.1	Test apparatus	27
D.1.2	Test sample	27
D.1.3	Measurement parameters	27
D.1.4	Test condition	27
D.1.5	Test procedure	28
D.1.6	Test result	28
D.2	For terminal Type Ib, II and III, test method with wind	29
D.2.1	Test apparatus	29
D.2.2	Test sample	30
D.2.3	Measurement parameters	30
D.2.4	Test condition	30
D.2.5	Test procedure	30
D.2.6	Test result	31
Annex E	(normative) Test method of icing effects	33
E.1	For terminal Type II and III, test method for icing behaviour	33
E.1.1	Test apparatus	33
E.1.2	Test sample	33
E.1.3	Measurement parameters	33
E.1.4	Test condition	34
E.1.5	Test procedure	34
E.1.6	Test result	34

Bibliography 36

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Foreword

This document (CEN/TS 16134:2011) has been prepared by Technical Committee CEN/TC 166 "Chimneys", the secretariat of which is held by UNI.

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 Technical Specification describes general requirements for terminals based on the appropriate characteristics of EN 1443.

This Technical Specification describes material independent test methods for vertical terminals concerning

- flow resistance,
- wind velocity pressure,
- recirculation,
- rain water ingress and
- icing behaviour.

Material relevant items or items related to the chimney for the terminal are not in the scope of this Technical Specification.

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

Introduction

This Technical Specification covers vertical terminals for non room-sealed and for room-sealed appliances.

NOTE Room-sealed applications include balanced and non-balanced flue applications.

The characteristics of a terminal are dependent on its type, as declared by the manufacturer.

The type of terminal depends on whether the wind influence is taken into account and whether the application is for balanced or non-balanced flue chimneys.

The characteristics are also considering different wind directions regarding the intended location of the terminal.

1 Scope

This Technical Specification specifies general requirements and material independent test methods for vertical terminals with different aerodynamic properties.

This Technical Specification does not apply to material dependent test methods and to requirements and test methods related to a chimney.

It is intended to be used as reference for product standards for terminals.

NOTE For the designation, marking and product information, relating to the items of the terminals a proposal is included.

2 Normative references

The following referenced documents are indispensable for the application 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 1443:2003, *Chimneys — General requirements*

EN 13216-1:2004, *Chimneys — Test methods for system chimneys — Part 1: General test methods*

EN 13384-1:2002+A2:2008, *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 60529, *Degrees of protection provided by enclosures (IP Code) (IEC 60529:1989)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1443:2003, EN 13216-1:2004 and the following apply.

NOTE Pressure always means the difference pressure to the environment.

3.1

terminal

fitting installed at the outlet of a chimney

NOTE The terminal can be a separate component of a chimney and/or a part of a chimney.

3.2

flow resistance of a terminal

pressure loss in a terminal due to the flow in the flue duct and where appropriate in the air duct gas at a given temperature and velocity

NOTE For balanced flue applications there is a pressure loss for the flue and also for the air supply. For non-balanced flue applications there is a pressure loss only for the flue.

3.3

coefficient of flow resistance

ratio between the flow resistance of a terminal and the dynamic pressure of the medium due to a directional and/or cross sectional change in the terminal