

This document is a review generated by EVS

Ventilation for buildings - Ductwork - Non-metallic ductwork - Requirements and test methods

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 17192:2018 sisaldab Euroopa standardi EN 17192:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 17192:2018 consists of the English text of the European standard EN 17192:2018.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 19.12.2018.	Date of Availability of the European standard is 19.12.2018.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 91.140.30

Standardite reproduutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 17192

December 2018

ICS 91.140.30

English Version

Ventilation for buildings - Ductwork - Non-metallic
ductwork - Requirements and test methods

Réseau de conduits - Réseau de conduits non
métalliques - Exigences et méthodes d'essai

Lüftung von Gebäuden - Nichtmetallische Kanäle -
Anforderungen und Prüfmethoden

This European Standard was approved by CEN on 5 November 2018.

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.

CEN members are the national standards bodies of 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

	Page
European foreword.....	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	6
4 Symbols.....	7
5 Specification.....	7
5.1 General.....	7
5.2 Air tightness.....	8
5.3 Pressure drop	8
5.4 Service temperature	9
5.5 Reaction to fire.....	9
5.6 Resistance to external pressure	9
5.7 Thermal resistance.....	9
5.8 Microbial resistance.....	9
5.9 Dangerous substances.....	9
6 General characteristics	9
6.1 Dimension and tolerances	9
6.2 Documentation.....	9
6.3 Mechanical connection.....	9
7 Requirements	10
7.1 General.....	10
7.2 Air tightness	10
7.3 Pressure drop	10
7.4 Service temperature	10
7.5 Reaction to fire.....	10
7.6 Resistance to external pressure	10
7.7 Thermal resistance.....	10
7.8 Microbial resistance.....	10
8 Test methods	10
8.1 General.....	10
8.2 Air tightness	10
8.2.1 General.....	10
8.2.2 Test assembly	11
8.3 Pressure drop	12
8.3.1 General.....	12
8.3.2 Test procedure for duct	12
8.3.3 Test procedure for a component with one inlet and one outlet.....	13
8.3.4 Test procedure for converging junctions	14
8.3.5 Test procedure for diverging junctions	15
8.4 Service temperature	16
8.5 Reaction to fire.....	16
8.5.1 General.....	16
8.5.2 Test configurations for SBI test.....	16
8.6 Resistance to external pressure	18

8.6.1	General	18
8.6.2	Test rig.....	18
8.6.3	Measurement of deformation force F.....	19
8.7	Thermal resistance	20
8.8	Microbial resistance	20
9	Product Information.....	20
9.1	Documentation	20
9.2	Marking and labelling	21
	Bibliography	22

European foreword

This document (EN 17192:2018) has been prepared by Technical Committee CEN/TC 156 "Ventilation for buildings", 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 June 2019, and conflicting national standards shall be withdrawn at the latest by June 2019.

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

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This document defines the test methods and performance characteristics for rigid or semi-rigid non-metallic ductwork which are used for ventilation and air conditioning of buildings.

This document does not include flexible ducts such as those made of textiles, non-metallic spiral ductwork or others, which are handled in EN 13180 or ductwork made from insulation duct board, which is handled in EN 13403. Requirements for the air tightness of the ventilation system for non-residential buildings are given in EN 16798-3. For residential buildings, it is essential to apply national rules.

This document specifies methods to test rigid or semi-rigid non-metallic ductwork under laboratory conditions. On-site tests are excluded. The test methods and performance characteristics are valid for ventilation ducts with circular, rectangular or other cross sections.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1507, *Ventilation for buildings - Sheet metal air ducts with rectangular section - Requirements for strength and leakage*

EN 12237, *Ventilation for buildings - Ductwork - Strength and leakage of circular sheet metal ducts*

EN 12664, *Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Dry and moist products of medium and low thermal resistance*

EN 12667, *Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Products of high and medium thermal resistance*

EN 12792, *Ventilation for buildings - Symbols, terminology and graphical symbols*

EN 13501-1, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*

EN 13823, *Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item*

CR 14378, *Ventilation for buildings — Experimental determination of mechanical energy loss coefficients of air handling components*

EN ISO 846, *Plastics - Evaluation of the action of microorganisms (ISO 846)*

EN ISO 1182, *Reaction to fire tests for products - Non-combustibility test (ISO 1182)*

EN ISO 1716, *Reaction to fire tests for products - Determination of the gross heat of combustion (calorific value) (ISO 1716)*

ISO 22196, *Measurement of antibacterial activity on plastics and other non-porous surfaces*