Feather and down - Test methods - Determination of the fill power (massic volume)



#### EESTI STANDARDI EESSÕNA

#### NATIONAL FOREWORD

	This Estonian standard EVS-EN 12130:2018 consists of the English text of the European standard EN 12130:2018.		
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 22.08.2018.	Date of Availability of the European standard is 22.08.2018.		
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 <u>standardiosakond@evs.ee</u>.

#### ICS 59.040

Standardite reprodutseerimise 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 <u>www.evs.ee</u>; telefon 605 5050; e-post <u>info@evs.ee</u>

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**

August 2018

EN 12130

ICS 59.040

Supersedes EN 12130:1998

#### **English Version**

# Feather and down - Test methods - Determination of the fill power (massic volume)

Plumes et duvets - Méthodes d'essais - Détermination du pouvoir gonflant (volume massique) Federn und Daunen - Prüfverfahren - Bestimmung der Füllkraft (Füllvolumen)

This European Standard was approved by CEN on 7 May 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

con	tents	Page
IIroi	pean foreword	2
uroj	Scope	
	Normative references	
	Terms and definitions	
	Principle	
	Apparatus	
	Preparation and conditioning of sample and equipment	
	Procedure	
	Calculation and expression of results	11
	Precision of the method	
)	Test reportx A (informative) Unit conversion	11
	x A (informative) Unit conversion	

#### **European foreword**

This document (EN 12130:2018) has been prepared by Technical Committee CEN/TC 443"Feather and down", the secretariat of which is held by DIN.

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 2019, and conflicting national standards shall be withdrawn at the latest by February 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.

This document supersedes EN 12130:1998.

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, Ron. Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

#### 1 Scope

This document specifies one procedure for determining the fill power (massic volume). This method is applicable to processed plumage fit for or constituting filled manufactured articles (e.g. anoraks, quilts, etc.).

#### 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 20187, Paper, board and pulps - Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples (ISO 187)

EN ISO 139, Textiles - Standard atmospheres for conditioning and testing (ISO 139)

ISO 3310-1, Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth

#### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at <a href="http://www.iso.org/obp">http://www.iso.org/obp</a>

#### 3.1

#### fill power

fp

height of the volume occupied by a specified quantity of filling material subjected to a specific pressure

Note 1 to entry: Fill power should be expressed in millimetres (mm)

Note 2 to entry: The volume occupied by a specific quantity of the filling material comprises internal pores of elements and pore spaces between elements.

#### 3.2

#### massic volume

volume occupied by a given mass of filling material, when subjected to a specific pressure

Note 1 to entry: Massic volume should be expressed in cubic centimetres per gram or cubic inches per 30 grams (g)

Note 2 to entry: The volume occupied by a specific quantity of filling material comprises internal pores of elements and pore spaces between elements

#### 3.3

#### finished plumage

plumage which has been passed through all the working processes, including washing, drying and all hygienic treatments