Pakend. Nõuded taaskasutatavate pakendite materjali ümbertöötlemiseks energia taastootmiseks, kaasa arvatud alumise kaloriväärtuse osas kehtestatud tingimused

Packaging - Requirements for packaging recoverable in the form of energy recovery, including specification of minimum inferior calorific value

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13431:2001 sisaldab Euroopa standardi EN 13431:2000 ingliskeelset teksti.	This Estonian standard EVS-EN 13431:2001 consists of the English text of the European standard EN 13431:2000.
Standard on kinnitatud Eesti Standardikeskuse 16.02.2001 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 16.02.2001 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 13.030.99, 55.020

energy conversations, energy sources, environment, heat yield, means of packaging, packages, packaging, packaging material, packaging means, packing, pollution control, power supplies, repackaging, reuse, specification (approval), specifications, utilization, wastes

EUROPEAN STANDARD

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EUROPÄISCHE NORM

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ICS 13.030.99; 55.020

English version

Packaging - Requirements for packaging recoverable in the form of energy recovery, including specification of minimum inferior calorific value

Emballage - Exigences relatives aux emballages valorisables énergétiquement, incluant la spécification d'un pouvoir calorifique inférieur minimum

Verpackung - Anforderungen an energetisch verwertbare Verpackung, einschließlich Definition eines Mindestheizwertes

This European Standard was approved by CEN on 4 June 2000.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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Ref. No. EN 13431:2000 E

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 261 "Packaging", the secretariat of which is held by AFNOR.

This European Standard 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 Directive(s).

For relationship with EU Directive(s), see informative Annex Z, which is an integral part of this standard.

This standard forms one of a series of standards and reports prepared under Mandate M 200 rev.3 given to CEN by the European Commission and the European Free Trade Association to support the European Council and Parliament Directive on Packaging and Packaging Waste [94/62/EC]. The procedure for applying this standard in conjunction with the other mandated standards and reports is specified in EN 13427.

This standard contains Annex A, which is normative and Annexes B, C and Z, which are informative

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 March 2001, and conflicting national standards shall be withdrawn at the latest by March 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Contents

Introduction

The Directive on Packaging and Packaging Waste (94/62/EC) defines requirements for packaging to be considered recoverable. This standard amplifies these requirements with respect to energy recovery. The European Standard EN 13427:2000 provides a framework within which this and four other standards may be used together to support a claim that a packaging is in compliance with the essential requirements for packaging to be placed on the market as required by the Directive.

This European Standard presents a framework for self-assessment to determine whether the requirements of this standard have been met. Its approach is similar to that of systems standards such as the EN ISO 9000 and EN ISO 14000 series.

The purpose of packaging is the containment, protection, handling, delivery and presentation of products. Energy recovery of used packaging is one of several recovery options within the overall life cycle of packaging. In order to save resources and minimise waste, the whole system in which the packaging takes part should be optimised. This includes prevention as well as reuse and recovery of packaging waste.

Since packaging waste used for energy recovery substitutes other fuels, total system optimisation includes production of heat and/or power. This standard defines and specifies the thermodynamic requirements for packaging to allow the incineration with energy recovery of packaging waste. Both packaging and recovery technologies are subject to continuous improvement.

Annex C sets out some of the more significant supporting regulations as well as conclusions reached during the preparation of the text. It is assumed that the heat generated during the incineration process shall be recovered as far as practicable, but it is outside the scope of this standard to take any standpoint on plant efficiency.

1 Scope

The scope of this European Standard is to specify the requirements for a packaging to be energy recoverable and to identify the necessary procedures for a supplier placing packaging on the market to claim conformity with these requirements.

This European Standard specifies the requirements for a packaging to be classified as recoverable in the form of energy and sets out procedures for assessment of conformity with those requirements. The scope is limited to what is under control of the supplier.

The procedure for applying this standard is contained in EN 13427:2000.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN 13193 :2000, Packaging - *Packaging and the Environment - Terminology.*

EN 13427 :2000, *Packaging and the environment - Requirements for the use of European standards in the field of packaging and packaging waste).*

prEN ISO 1716 :1998 *Solid mineral fuels - Determination of gross calorific value by the bomb calorimetric method, and calculation of net calorific value.*

CR 13695-1 :2000, *Packaging – Requirements for measuring and verifying heavy metals and other dangerous substances present in packaging and their release into the environment – part 1 : Requirements for measuring and verifying the four heavy metals present in packaging and their release into the environment*

ISO 1171:1997, *Solid mineral fuels - Determination of ash content.*

ISO 1928 : 1995 ; *Solid mineral fuels – determination of gross calorificvalue by the bomb calorimetric method, and calculation of net calorific value*

3 Terms and definitions

For the purpose of this standard, relevant terms and definitions contained in EN 13193 :2000 together with the following terms and definitions apply :

3.1
net calorific value (inferior calorific value), Q_{net}
defined in ISO 1928:1995 and measured at constant volume

3.2
required energy, H_a
energy necessary to adiabatically heat the post combustion substances of a material and excess air from ambient temperature to a specified final temperature

3.3
calorific gain
the positive difference between the energy released on combustion of a material and H_a

3.4
minimum inferior calorific value $Q_{net,\ min}$
the fraction of the released energy sufficient to heat the post-combustion substances of a material or product from a specified ambient temperature to a specified adiabatic final temperature