General method for the assessment of the ability to remanufacture energy-related products



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EUROPEAN STANDARD

EN 45553

NORME EUROPÉENNE EUROPÄISCHE NORM

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English Version

General method for the assessment of the ability to remanufacture energy-related products

Méthode générale pour l'évaluation de la capacité d'un produit lié à l'énergie à être refabriqué

Allgemeines Verfahren zur Bewertung der Wiederherstellungsfähigkeit energieverbrauchsrelevanter Produkte

This European Standard was approved by CENELEC on 25 May 2020. CEN and CENELEC 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 and CENELEC 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 and CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization Comité Européen de Normalisation Electrotechnique Europäisches Komitee für Elektrotechnische Normung

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European foreword

This document [EN 45553:2020] has been prepared by CEN/CLC/JTC 10 "Energy-related products - Material Efficiency Aspects for Ecodesign".

The following dates are fixed:

- latest date by which this document has to be (dop) 2021-05-25 implemented at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards (dow) 2023-05-25 conflicting with this document have to be withdrawn

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

This document has been prepared under a standardization request given to CEN and CENELEC by the European Commission and the European Free Trade Association.

The dual logo CEN-CENELEC standardization deliverables, in the numerical range of 45550 – 45559, have been developed under standardization request M/543 of the European Commission and are intended to potentially apply to any product within the scope of the Directive 2009/125/EC concerning energy-related products (ErP).

Topics covered in the above standardization request are linked to the following material efficiency aspects:

- a) Extending product lifetime;
- b) Ability to reuse components or recycle materials from products at end-of-life;
- c) Use of reused components and/or recycled materials in products.

These standards are general in nature and describe or define fundamental principles, concepts, terminology or technical characteristics. They can be cited together with other product publications, e.g. developed by product technical committees.

This document is intended to be used by technical committees when producing horizontal, generic, and product-specific, or product-group, publications.

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Introduction

This document provides a general method for assessing the ability of an energy-related product to be remanufactured, to be used by technical committees when producing horizontal, generic, and product-specific, or product-group, publications. It identifies seven general process steps which are crucial to the remanufacturing process. Each of the seven steps (see 5.1) is linked to several product attributes of the energy-related product (see table 1). These product attributes are evaluated by their criteria described in 5.2.1 to 5.2.5.

As the terms remanufacturing and refurbishment are sometimes used interchangeably in different industry sectors it is necessary to clarify what is meant by remanufacturing in this document. Remanufacturing is s whe is applie not cover ge. identified as an industrial process where at least one change, which influences the safety, original performance, purpose or type of the product, is applied to the energy-related product.

This document does not cover general methods for assessing the ability of an energy-related product to be refurbished.

1 Scope

This document contains a general method to assess the ability of energy-related products to be remanufactured. It is intended to be used by technical committees when producing horizontal, generic, and product, or product-group, standards.

NOTE 1 Throughout this document, reference to 'user of this document' refers to those members of technical committees that are producing horizontal, generic, and product, or product-group, standards as well as any person using the standard directly.

Assessing the ability of a part that is not considered to be an energy-related product to be remanufactured is not considered in this document.

NOTE 2 To assess the ability of an energy-related product to be remanufactured (i.e. in 5.2.1 to 5.2.5), the described criteria are applied to the parts of the energy-related product.

A scoring system to quantify the ability of an energy-related product to be remanufactured is not covered in this document. Only the criteria for the ability of an energy-related product to be remanufactured are presented in this document.

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 45559:2019, Methods for providing information relating to material efficiency aspects of energy-related products

3 Terms, definitions and abbreviations

3.1 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 http://www.iso.org/obp

NOTE See CLC/prTR 45550 [8] for additional definitions related to Material Efficiency.

3.1.1

remanufacturing

industrial process which produces a product from used products or used parts where at least one change is made which influences the safety, original performance, purpose or type of the product

Note 1 to entry: The product created by the remanufacturing process may be considered a new product when placing on the market. Refer to the EU Blue Guide [1] for additional information.

Note 2 to entry: Refurbishing is a similar concept to remanufacturing except that it does not involve changes influencing safety, original performance, purpose or type of the product. It is not covered by this standard.

3.1.2

part

hardware, firmware or software constituent of a product

[SOURCE: EN 45554:2020, 3.1.1]