BS EN IEC 63169:2020

BSI Standards Publication

Electrical household and similar cooling and freezing appliances — Food preservation

National foreword

This British Standard is the UK implementation of EN IEC 63169:2020. It is identical to IEC 63169:2020.

The UK participation in its preparation was entrusted to Technical Committee CPL/59, Performance of household electrical appliances.

A list of organizations represented on this committee can be obtained on request to its committee manager.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

Electrical household and similar cooling and freezing appliances - Food preservation (IEC 63169:2020)

Appareils électrodomestiques et appareils de refroidissement et de réfrigération analogues - Conservation des aliments (IEC 63169:2020)

Elektrische Haushalts- und ähnliche Kühl- und Gefriergeräte - Lebensmittelkonservierung (IEC 63169:2020)

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

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

European foreword

The text of document 59M/123/FDIS, future edition 1 of IEC 63169, prepared by SC 59M "Performance of electrical household and similar cooling and freezing appliances" of IEC/TC 59 "Performance of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63169:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-04-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-07-27

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The text of the International Standard IEC 63169:2020 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 62552-2:2015	NOTE	Harmonized as EN 62552-2:2020 (modified)
ISO 9073-3:1989	NOTE	Harmonized as EN 29073-3:1992 (not modified)
ISO 9237:1995	NOTE	Harmonized as EN ISO 9237:1995 (not modified)

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRICAL HOUSEHOLD AND SIMILAR COOLING AND FREEZING APPLIANCES – FOOD PRESERVATION

FOREWORD

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International Standard IEC 63169 has been prepared by subcommittee 59M: Performance of electrical household and similar cooling and freezing appliances, of IEC technical committee 59: Performance of household and similar electrical appliances.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
59M/123/FDIS	59M/125/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

In this document, the following print types are used:

- terms defined in Clause 3 of this document, and in Clause 3 of IEC 62552-1:2015: **Arial bold**.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

NOTE 1 The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 12 months or later than 36 months from the date of publication.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

The **weight loss** test assesses some of the food care aspects of various **compartments**, **sub-compartments** and **convenience features** within a refrigerator. The test can be performed with real or artificial foods. Real foods have seasonal and regional variations, making them difficult for global use for repeatable and reproducible testing.

Research was carried out on materials, which proved that a particular non-woven material was suitable to use to replicate real food. This non-woven material is used to replicate **weight loss** from food in the **weight loss** test. Consequently, this document contains an artificial material weight loss test.

As much as possible, alignment has been made with the performance test standards IEC 62552-1 and IEC 62552-3.

This document contains a link to the SC 59M Supporting Documents that are available on the IEC website. The SC 59M Supporting Documents include the 3D printing files, referred to in Annex B. These files are intended to be used as a complement, and do not form an integral part of the document.

ELECTRICAL HOUSEHOLD AND SIMILAR COOLING AND FREEZING APPLIANCES – FOOD PRESERVATION

1 Scope

This document deals with a test to simulate the **weight loss** of leafy produce, given certain conditions of temperature, humidity and air movement in one or more **test zones**. The test can only be applied to spaces larger than 200 mm × 150 mm ×100 mm (L × W × H).

The aim of the test is to measure the **weight loss rate** by measuring the weight of a **test tray** prior to the test and after a given duration.

NOTE **Weight loss** is one of the considerations for shelf life of produce. Other considerations such as condensation will be addressed in future amendments.

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.

IEC 62552-1:2015, *Household refrigerating appliances – Characteristics and test methods – Part 1: General requirements*

IEC 62552-3:2015, *Household refrigerating appliances – Characteristics and test methods – Part 3: Energy consumption and volumes*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62552-1:2015 and the following 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

3.1
test zone
space inside the refrigeration appliance subject to the **weight loss** test

Note 1 to entry: This space is typically a vegetable drawer or crisper but can also be any other compartment, sub-compartment or convenience feature (see IEC 62552-1:2015, 3.3.1, 3.3.2 and 3.3.3, respectively). The manufacturer shall fully describe any **test zones** to be tested.

Note 2 to entry: Any zone in a refrigerator can be a **test zone**. A **test zone** needs to be separated or at least partially sealed from other zones in the same **compartment** or **sub-compartment**.

3.2
test tray
tray of specific dimensions containing a predefined number of **test sheets** which is charged with a predefined amount of water