



BSI Standards Publication

**Refrigerated storage cabinets and counters  
for professional use — Performance  
and energy consumption**

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## National foreword

This British Standard is the UK implementation of EN ISO 22041:2019+A1:2019. It is derived from ISO 22041:2019. It supersedes BS EN ISO 22041:2019, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CEN text carry the number of the CEN amendment. For example, text altered by CEN amendment A1 is indicated by A1 A1.

The UK participation in its preparation was entrusted to Technical Committee RHE/19, Commercial refrigerated food cabinets (cold room and display cases).

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

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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**Compliance with a British Standard cannot confer immunity from legal obligations.**

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### Amendments/corrigenda issued since publication

Date	Text affected
31 January 2020	Implementation of CEN amendment A1:2019

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EUROPÄISCHE NORM

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English Version

## Refrigerated storage cabinets and counters for professional use - Performance and energy consumption (ISO 22041:2019)

Armoires et comptoirs frigorifiques de stockage destinés à un usage professionnel - Performances et consommation d'énergie (ISO 22041:2019)

Servicekühlthecken- und -tische für den gewerblichen Gebrauch - Leistung und Energieaufnahme (ISO 22041:2019)

This European Standard was approved by CEN on 24 May 2019.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant 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.

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

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

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This document (EN ISO 22041:2019) has been prepared by Technical Committee ISO/TC 86 "Refrigeration and air-conditioning" in collaboration with Technical Committee CEN/TC 44 "Commercial and Professional Refrigerating Appliances and Systems, Performance and Energy Consumption" the secretariat of which is held by UNI.

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 December 2019, and conflicting national standards shall be withdrawn at the latest by December 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 16825:2016.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### **Endorsement notice**

The text of ISO 22041:2019 has been approved by CEN as EN ISO 22041:2019 without any modification.

### **Foreword to amendment A1**

This document (EN ISO 22041:2019/A1:2019) has been prepared by Technical Committee CEN/TC 44 "Commercial and Professional Refrigerating Appliances and Systems, Performance and Energy Consumption" the secretariat of which is held by UNI.

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 May 2020, and conflicting national standards shall be withdrawn at the latest by May 2020.

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.

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**A1** This document 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 ZA and Annex ZB, which are integral parts of this document. **A1**

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**Annex ZA**  
(informative)

**Relationship between this European Standard and the ecodesign requirements of Commission Regulation (EU) No 2015/1095 aimed to be covered**

This European Standard has been prepared under a Commission's standardization request M/495 EN and its Amendment No. 1 Technical Update (ANNEX B OF M/495) to provide one voluntary means of conforming to the ecodesign requirements of Commission Regulation (EU) No 2015/1095 of 5 May 2015 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for professional refrigerated storage cabinets, blast cabinets, condensing units and process chillers.

Once this standard is cited in the Official Journal of the European Union under that Regulation, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding ecodesign requirements of that Regulation and associated EFTA regulations.

**Table ZA.1 — Correspondence between this European Standard and Commission Regulation (EU) No 2015/1095 of 5 May 2015 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for professional refrigerated storage cabinets, blast cabinets, condensing units and process chillers and Commission's standardisation request M/495 EN and its Amendment No. 1 Technical Update**

<b>Ecodesign Requirements of Regulation (EU) No 2015/1095</b>	<b>Clause(s)/sub-clause(s) of this EN</b>	<b>Remarks/Notes</b>
Annex I 1	6.1	
Annex I 2, 3	4.2.1	
Annex III	5.3.5	
Annex IV 2a	4.2.1, 5.3.4	
Annex IV 2b	5.3.2.2, 5.3.2.3, Annex A	
Annex IX	5.3.2.7, Annex A	

**WARNING 1** — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

**WARNING 2** — Other Union legislation may be applicable to the products falling within the scope of this standard.

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## Annex ZB (informative)

### Relationship between this European Standard and the energy labelling requirements of Commission Delegated Regulation (EU) No 2015/1094 aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/495 EN and its Amendment No. 1 Technical Update (ANNEX B OF M/495) to provide one voluntary means of conforming to the energy labelling requirements of Commission Delegated Regulation (EU) No 2015/1094 of 5 May 2015 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of professional refrigerated storage cabinets..

Once this standard is cited in the Official Journal of the European Union under that Regulation, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding energy labelling requirements of that Regulation and associated EFTA regulations.

**Table ZB.1 - Correspondence between this European Standard and Commission Delegated Regulation (EU) No 2015/1094 of 5 May 2015 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of energy labelling of professional refrigerated storage cabinets**

Energy labelling requirements of Regulation (EU) No 2015/1094	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
Annex I 1	6.1	
Annex I 2, 3	4.2.1	
Annex VIII	5.3.5	
Annex IX 2 first dashed item	4.2.1, 5.3.4	
Annex IX 2 second dashed item	5.3.2.2, 5.3.2.3, Annex A	
Annex X	5.3.2.7, Annex A	

**WARNING 1** — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

**WARNING 2** — Other Union legislation may be applicable to the products falling within the scope of this standard.

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 86, *Refrigeration and air-conditioning*, Subcommittee SC 7, *Testing and rating of commercial refrigerated display cabinets*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).



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# Refrigerated storage cabinets and counters for professional use — Performance and energy consumption

## 1 Scope

This document specifies requirements for the verification of performance and energy consumption of refrigerated storage cabinets and counters for professional use in commercial kitchens, hospitals, canteens, preparation areas of bars, bakeries, gelateria, institutional catering and similar professional areas.

The products covered in this document are intended to store foodstuffs. It specifies test conditions and methods for checking that the requirements have been satisfied, as well as classification of the cabinets and counters, their marking and the list of their characteristics to be declared by the manufacturer.

It is not applicable to:

- refrigerated cabinets used in the direct sale of foodstuffs;
- cabinets that carry out food processing and not just storage function (e.g. bakery cabinets that chill, heat and humidify);
- cabinets with water cooled condenser;
- appliances with remote condensing unit;
- appliances with open top tables and saladettes for preparation or storage of foodstuffs;
- cabinets specifically intended for storage of specific foodstuffs (i.e. fresh meat, fresh fish, etc.) operating at a temperature different from those specified in [Table 1](#);
- chest freezers;
- appliances intended for short time /intermittent normal operation during the full day;
- built-in cabinets;
- roll-in cabinets;
- pass-through cabinets;
- ice cream freezers.

## 2 Normative references

There are no normative references in this document.

## 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 <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>