

BSI Standards Publication

Blast chiller and freezer cabinets for professional use — Classification, requirements and test conditions



BS EN ISO 22042:2021 BRITISH STANDARD

This is a preview of "BS EN ISO 22042:2021". Click here to purchase the full version from the ANSI store.

National foreword

This British Standard is the UK implementation of EN ISO 22042:2021. It is identical to ISO 22042:2021. It supersedes BS EN 17032:2018+A1:2019, which is withdrawn.

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 committee manager.

This publication has been prepared under a mandate given to the European Standards Organizations by the European Commission and the European Free Trade Association. It is intended to support requirements of the EU legislation detailed in the European Foreword. A European Annex, usually Annex ZA or ZZ, describes how this publication relates to that EU legislation.

For the Great Britain market (England, Scotland and Wales), if UK Government has designated this publication for conformity with UKCA marking (or similar) legislation, it may contain an additional National Annex. Where such a National Annex exists, it shows the correlation between this publication and the relevant UK legislation. If there is no National Annex of this kind, the relevant Annex ZA or ZZ in the body of the European text will indicate the relationship to UK regulation applicable in Great Britain. References to EU legislation may need to be read in accordance with the UK designation and the applicable UK law. Further information on designated standards can be found at www.bsigroup.com/standardsandregulation.

For the Northern Ireland market, UK law will continue to implement relevant EU law subject to periodic confirmation. Therefore Annex ZA/ZZ in the European text, and references to EU legislation, are still valid for this market.

UK Government is responsible for legislation. For information on legislation and policies relating to that legislation, consult the relevant pages of www.gov.uk.

Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

© The British Standards Institution 2021 Published by BSI Standards Limited 2021 BRITISH STANDARD BS EN ISO 22042:2021

This is a preview of "BS EN ISO 22042:2021". Click here to purchase the full version from the ANSI store.

ISBN 978 0 539 04337 2

ICS 97.130.20

 $\label{lem:compliance} \textbf{Compliance with a British Standard cannot confer immunity from legal obligations.}$

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 November 2021.

Amendments/corrigenda issued since publication

Date Text affected

| This is a preview of "BS EN ISO 22042:2021". Click here to purchase the full version from the ANSI store |
|--|
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |
| |

PUDADEAN COLUDADA

This is a preview of "BS EN ISO 22042:2021". Click here to purchase the full version from the ANSI store.

EUROPÄISCHE NORM

October 2021

ICS 97.130.20

Supersedes EN 17032:2018

English Version

Blast chiller and freezer cabinets for professional use - Classification, requirements and test conditions (ISO 22042:2021)

Cellules de refroidissement et de surgélation rapide pour usage professionnel - Classification, exigences et conditions d'essai (ISO 22042:2021) Schnellkühl- und Schockfrostkabinen für den gewerblichen Gebrauch -Klassifizierung, Anforderungen und Prüfbedingungen (ISO 22042:2021)

This European Standard was approved by CEN on 18 March 2021.

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, 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 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

European foreword

This document (EN ISO 22042:2021) 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 April 2022, and conflicting national standards shall be withdrawn at the latest by April 2022.

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 17032:2018.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For the relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN websites.

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 22042:2021 has been approved by CEN as EN ISO 22042:2021 without any modification.

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 <u>Table ZA.1</u> 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

| Ecodesign Requirements of Regulation (EU) No 2015/1095 | Clause(s)/sub-clause(s) of this EN | Remarks/Notes | |
|--|---------------------------------------|---|--|
| Annex II 2c (i) | 3.3, 7 | Equipment designed to be used with a remote condensing unit (not supplied with the blast cabinet itself) is not covered | |
| Annex II 2c (ii) | 4.1, 7 | Equipment designed to be used with a remote condensing unit (not supplied with the blast cabinet itself) is not covered | |
| Annex II 2c (iii) | 5, 6, 7 | Equipment designed to be used with a remote condensing unit (not supplied with the blast cabinet itself) is not covered | |
| Annex II 2c (iiii) | 7 | Equipment designed to be used with a remote condensing unit (not supplied with the blast cabinet itself) is not covered | |

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.

| Contents | | Page | |
|----------|---|---|---|
| Fore | eword | | v |
| 1 | Scop | ne | 1 |
| 2 | Nori | native references | 1 |
| 3 | Tern | ns and definitions | 1 |
| 4 | Req i 4.1 4.2 | Reference temperature and time of test food | 3 |
| 5 | Test 5.1 5.2 5.3 5.4 5.5 5.6 | Test room Blast cabinet selection, installation and positioning within the test room Blast cabinet operation Power supply Instruments, measuring equipment and measuring accuracy Test load 5.6.1 Test food 5.6.2 Test pan loading 5.6.3 M-pans 5.6.4 Blast cabinet loading Temperature recording | 3 3 4 4 4 5 5 5 7 |
| 6 | Test procedure for total energy measurement | | |
| 7 | Info | rmation to be declared | 9 |
| Bibl | Bibliography | | |

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).

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).

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.

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*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 44, *Commercial and professional refrigerating appliances and systems, performance and energy consumption*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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.



Blast chiller and freezer cabinets for professional use — Classification, requirements and test conditions

1 Scope

This document specifies the requirements for the verification of performance and energy consumption of blast cabinets for professional use in commercial kitchens, hospitals, canteens, institutional catering and similar professional areas.

The appliances covered by this document are intended to rapidly cool down hot foodstuffs up to a load capacity of 300 kg.

This document applies to:

- blast chillers:
- blast freezers:
- multi-use blast chillers/freezers.

The following appliances are not covered:

- roll-in cabinet;
- pass-through cabinet;
- cabinets with remote condensing unit;
- cabinets with water cooled condenser;
- blast chilling and freezing tunnels;
- continuous blast-chilling and blast-freezing equipment;
- bakery combined freezing and storage units.

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

3.1

blast cabinet

insulated refrigerating appliance primarily intended to rapidly cool down hot foodstuff