



SLOVENSKI STANDARD
oSIST prEN 4855-03:2024
01-junij-2024

Aeronavtika - Ekoučinkovitost naprave za gostinstvo - 3. del: Oprema za hlajenje

Aerospace series - ECO efficiency of catering equipment - Part 03: Chilling equipment

Luft- und Raumfahrt - ECO Effizienz von Cateringgeräten - Teil 03: Kühlgeräte

Série aérospatiale - Éco efficacité du matériel de restauration - Partie 03: Matériel réfrigérant

Ta slovenski standard je istoveten z: prEN 4855-03

ICS:

49.095

Oprema za potnike in
oprema kabin

Passenger and cabin
equipment

oSIST prEN 4855-03:2024

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 4855-03

April 2024

ICS 49.020; 67.250

Will supersede EN 4855-03:2020

English Version

Aerospace series - ECO efficiency of catering equipment - Part 03: Chilling equipment

Série aérospatiale - Éco efficacité du matériel de
restauration - Partie 03: Matériel réfrigérant

Luft- und Raumfahrt - ECO Effizienz von
Cateringgeräten - Teil 03: Kühlgeräte

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee ASD-STAN.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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, Türkiye and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

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

Contents	Page
European foreword	3
Introduction	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions.....	5
4 Symbols and abbreviations	6
5 General test conditions.....	6
5.1 Measurements and calculations.....	6
5.2 Environmental conditions.....	7
5.3 Power supply and voltage.....	7
5.4 Measurement equipment.....	7
5.5 Test set up.....	7
5.6 Test medium	7
5.7 General conditions for weight measurement.....	7
5.8 Operating conditions	7
6 Test procedures.....	8
6.1 Preparation of the EUT	8
6.2 Measurement of the storage volume	8
6.3 Energy consumption test for all chilling equipment.....	8
6.4 Additional energy consumption test for chilling equipment with freeze mode	8
7 Evaluation and calculation	9
7.1 General.....	9
7.2 Calculation of energy consumption index (ECI)	9
7.3 Calculation of performance index (PI).....	10
7.4 Test report.....	11
7.5 Calculation sheet.....	11

European foreword

This document (prEN 4855-03:2024) has been prepared by the Aerospace and Defence Industries Association of Europe — Standardization (ASD-STAN).

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 4855-03:2020.

The main changes compared to the previous edition are as follows:

- removed “Only galley chilling equipment with a freeze function will be considered” from the scope;
- removed “For this energy consumption index, only equipment with a freeze function will be considered.” from note in 3.2;
- added measurement of the storage volume to 5.1;
- clarified test medium in 5.6;
- rewritten operational conditions to allow for units without freeze mode in 5.8;
- reduced total amount of storage capacity filled by test medium in 6.1 from 100 % of storage volume to 30 % allowing for air to circulate between test media and provide for realistic load situation;
- swapped 6.2 and 6.3;
- clarified the definition of end of Pull-Down-Time in 6.3;
- definition of usable inner volume according to actual volume rather than number of media insertable in 7.2;
- reestablishment of reference values required due to procedure changes;
- updated values for scaled reference kerosene consumption in 7.2;
- updated values for reference inner equipment volume and reference Pull-Down-Time in 7.3.

prEN 4855-03:2024 (E)

Introduction

During aircraft operations the food storage in the cabin is mandatory to maintain the catering on board. There exist different equipment types to cool, freeze or chill any foods or drinks. To meet the target to determine an energy efficiency index for galley chilling equipment (freezer, refrigerators and beverage chillers) the purpose of this document is to standardize the test procedure and efficiency calculations for this equipment.

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[oSIST prEN 4855-03:2024](https://standards.iteh.ai/catalog/standards/sist/f9566c1a-f25e-4452-be31-f65344e628f5/osist-pren-4855-03-2024)

<https://standards.iteh.ai/catalog/standards/sist/f9566c1a-f25e-4452-be31-f65344e628f5/osist-pren-4855-03-2024>