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Aerospace series - ECO efficiency of catering equipment - Part 02: Oven equipment

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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EUROPEAN STANDARD

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English Version

Aerospace series - ECO efficiency of catering equipment - Part 02: Oven equipment

Série aérospatiale - Efficacité du matériel de
restauration - Partie 02 : Fours

Luft- und Raumfahrt - ECO-Effizienz von
Cateringgeräten - Teil 02: Öfen

This European Standard was approved by CEN on 3 November 2025.

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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 for oven equipment 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

6 Test Procedures 7

6.1 Preparation of test medium 7

6.2 Test preparation 8

7 Evaluation and calculation 9

7.1 General 9

7.2 Calculation of energy consumption index (ECI) for oven equipment 9

7.3 Calculation of performance index (PI) 10

7.4 Test report 10

7.5 Calculation sheet 11

European foreword

This document (EN 4855-02:2025) has been prepared by ASD-STAN.

After enquiries and votes carried out in accordance with the rules of this Association, this document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

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of an identical text or by endorsement, at the latest by June 2026, and conflicting national standards shall be withdrawn at the latest by June 2026.

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 4855-02:2020.

This document includes the following significant technical changes with respect to EN 4855-02:2020:

- update of formula for kerosene consumption based on updated EN 4855-01;
- update of reference value $m_{K,ref}$.

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

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Introduction

During aircraft operations, the food preparation in the cabin is mandatory to maintain the catering on board. There exist different equipment types to heat up the prepared meals for the passengers in the cabin. On the one hand meals can be heated by usage of steam (steam ovens); on the other hand it can be heated by usage of hot and dry air (convection oven). To meet the target to determine an energy efficiency index for aircraft oven equipment, the purpose of this document is to standardize the test procedure and efficiency calculations for this equipment type.

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1 Scope

This document specifies a test procedure to identify performance characteristics and a weight rating of convection and steam ovens used on aircraft. Furthermore, it specifies the calculation procedure to determine an energy consumption index and a performance index. There is no direct correlation between the ECO efficiency and cooking performance in terms of food quality and appearance. The two index values represent the ECO efficiency.

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 4855-01:2025, *Aerospace series — ECO efficiency of catering equipment — Part 01: General conditions*

EN IEC 60350-1, *Household electric cooking appliances — Part 1: Ranges, ovens, steam ovens and grills — Methods for measuring performance(IEC 60350-1)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 4855-01 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

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

3.1

catering equipment

equipment installed in an aircraft to provide or support food or beverage service

Note 1 to entry: Includes ovens, beverage makers, water heaters, chilling equipment, trash compactors and espresso makers.

[SOURCE: EN 4855-01:2025, 3.1]

3.2

oven equipment

equipment with a cavity to heat, bake and roast food or meals to elevated temperatures

Note 1 to entry: This equipment type includes convection and steam ovens.

3.2.1

steam oven

heating mode with usage of steam to heat up the food in the inner cavity of the oven

3.2.2

convection oven

heating mode with usage of dry air to heat up the food in the inner cavity of the oven