

Surface cleaning appliances - Part 7: Dry-cleaning robots for household or similar use - Methods for measuring the performance

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

|                                                                                                                           |                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| See Eesti standard EVS-EN IEC/ASTM 62885-7:2021 sisaldab Euroopa standardi EN IEC/ASTM 62885-7:2021 ingliskeelset teksti. | This Estonian standard EVS-EN IEC/ASTM 62885-7:2021 consists of the English text of the European standard EN IEC/ASTM 62885-7:2021.                  |
| Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.                                                        | This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. |
| Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 22.01.2021.       | Date of Availability of the European standard is 22.01.2021.                                                                                         |
| Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.                                                    | The standard is available from the Estonian Centre for Standardisation and Accreditation.                                                            |

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 97.080

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardimis- ja Akrediteerimiskeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardimis-ja Akrediteerimiskeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardimis-ja Akrediteerimiskeskusega: Koduleht [www.evs.ee](http://www.evs.ee); telefon 605 5050; e-post [info@evs.ee](mailto:info@evs.ee)

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation and Accreditation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation and Accreditation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation and Accreditation:

Homepage [www.evs.ee](http://www.evs.ee); phone +372 605 5050; e-mail [info@evs.ee](mailto:info@evs.ee)

English Version

Surface cleaning appliances - Part 7: Dry-cleaning robots for  
household or similar use - Methods for measuring the  
performance  
(IEC/ASTM 62885-7:2020)

Appareils de nettoyage des sols - Partie 7 : Robots de  
nettoyage à sec à usage domestique ou analogue -  
Méthodes de mesure de l'aptitude à la fonction  
(IEC/ASTM 62885-7:2020)

Geräte zur Oberflächenreinigung - Teil 7: Trocken-  
Reinigungsroboter für den Hausgebrauch und ähnliche  
Anwendungen - Verfahren zur Messung der  
Gebrauchseigenschaften  
(IEC/ASTM 62885-7:2020)

This European Standard was approved by CENELEC on 2020-12-02. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



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 59F/393/FDIS, future IEC/ASTM 62885-7, prepared by SC 59F "Surface cleaning 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/ASTM 62885-7:2021.

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) 2021-09-02
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-12-02

This document supersedes EN 62929:2014 and all of its amendments and corrigenda (if any).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

## Endorsement notice

The text of the International Standard IEC/ASTM 62885-7:2020 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 60335-1:2010   | NOTE | Harmonized as EN 60335-1:2012                                |
| IEC 60335-2-2:2019 | NOTE | Harmonized as EN IEC 60335-2-2:— <sup>1</sup> (not modified) |
| ISO 2768-1:1989    | NOTE | Harmonized as EN 22768-1:1993 (not modified)                 |

---

<sup>1</sup> To be published. Stage at the time of publication: prEN IEC 60335-2-2:2020.

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

| <u>Publication</u> | <u>Year</u> | <u>Title</u>                                                                                                                                                            | <u>EN/HD</u>      | <u>Year</u> |
|--------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|
| IEC 62301          | -           | Household electrical appliances - Measurement of standby power                                                                                                          | EN 50564          | -           |
| IEC/TS 62885-1     | -           | Surface cleaning appliances - Part 1: General requirements on test material and test equipment                                                                          | -                 | -           |
| IEC 62885-2        | 2016        | Surface cleaning appliances - Part 2: Dry vacuum cleaners for household or similar use - Methods for measuring the performance                                          | -                 | -           |
| IEC 60704-1        | -           | Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 1: General requirements                               | EN 60704-1        | -           |
| IEC 60704-2-17     | -           | Household and similar electrical appliances - Test code for the determination of airborne acoustical noise - Part 2-17: Particular requirements for dry-cleaning robots | EN IEC 60704-2-17 | -           |
| ISO 554            | -           | Standard atmospheres for conditioning and/or testing - Specifications                                                                                                   | -                 | -           |
| ISO 2813           | -           | Paints and varnishes - Determination of gloss value at 20 degrees, 60 degrees and 85 degrees                                                                            | EN ISO 2813       | -           |

# INTERNATIONAL STANDARD



**Surface cleaning appliances –  
Part 7: Dry-cleaning robots for household or similar use – Methods for  
measuring the performance**



## THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2020 IEC, Geneva, Switzerland

Copyright © 2020 ASTM International

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing being secured. Requests for permission to reproduce should be addressed to either IEC at the address below or IEC's member National Committee in the country of the requester or from ASTM.

IEC Central Office  
3, rue de Varembe  
CH-1211 Geneva 20  
Switzerland  
Tel.: +41 22 919 02 11  
[info@iec.ch](mailto:info@iec.ch)  
[www.iec.ch](http://www.iec.ch)

ASTM Headquarters  
100 Barr Harbor Drive  
West Conshohocken, PA 19428-2959  
United States of America  
<mailto:mkhooper@astm.org>  
[www.astm.org](http://www.astm.org)

### About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

### About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

#### IEC publications search - [webstore.iec.ch/advsearchform](http://webstore.iec.ch/advsearchform)

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, replaced and withdrawn publications.

#### IEC Just Published - [webstore.iec.ch/justpublished](http://webstore.iec.ch/justpublished)

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

#### IEC Customer Service Centre - [webstore.iec.ch/csc](http://webstore.iec.ch/csc)

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: [sales@iec.ch](mailto:sales@iec.ch).

#### Electropedia - [www.electropedia.org](http://www.electropedia.org)

The world's leading online dictionary on electrotechnology, containing more than 22 000 terminological entries in English and French, with equivalent terms in 16 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.

#### IEC Glossary - [std.iec.ch/glossary](http://std.iec.ch/glossary)

67 000 electrotechnical terminology entries in English and French extracted from the Terms and definitions clause of IEC publications issued between 2002 and 2015. Some entries have been collected from earlier publications of IEC TC 37, 77, 86 and CISPR.



IEC/ASTM 62885-7

Edition 1.0 2020-10

# INTERNATIONAL STANDARD



**Surface cleaning appliances –  
Part 7: Dry-cleaning robots for household or similar use – Methods for  
measuring the performance**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

ICS 97.080

ISBN 978-2-8322-8540-4

**Warning! Make sure that you obtained this publication from an authorized distributor.**

# CONTENTS

|                                                                 |    |
|-----------------------------------------------------------------|----|
| FOREWORD.....                                                   | 6  |
| INTRODUCTION.....                                               | 8  |
| 1 Scope.....                                                    | 9  |
| 2 Normative references .....                                    | 9  |
| 3 Terms and definitions .....                                   | 9  |
| 4 General conditions for testing .....                          | 11 |
| 4.1 General.....                                                | 11 |
| 4.2 Atmospheric conditions .....                                | 11 |
| 4.3 Lighting conditions .....                                   | 12 |
| 4.4 Test equipment and materials .....                          | 12 |
| 4.5 Number of samples .....                                     | 12 |
| 4.6 Preparation of the battery .....                            | 12 |
| 4.7 Running-in of a new cleaning robot .....                    | 13 |
| 4.8 Operation of the cleaning robot .....                       | 13 |
| 4.9 Measurement of collected dust weight .....                  | 13 |
| 4.10 Measurement resolution and accuracy .....                  | 13 |
| 4.11 Tolerance of dimensions .....                              | 14 |
| 5 Cleaning performance – Straight line .....                    | 14 |
| 5.1 General.....                                                | 14 |
| 5.2 Preparation of test .....                                   | 14 |
| 5.2.1 Pre-treatment of cleaning robot .....                     | 14 |
| 5.2.2 Preconditioning of test floor .....                       | 15 |
| 5.2.3 Pre-treatment of test carpet .....                        | 15 |
| 5.3 Test mode.....                                              | 16 |
| 5.3.1 General .....                                             | 16 |
| 5.3.2 Access to test mode .....                                 | 16 |
| 5.3.3 Test mode action .....                                    | 17 |
| 5.3.4 Speed verification .....                                  | 17 |
| 5.4 Dust removal from hard floor.....                           | 18 |
| 5.4.1 Test bed .....                                            | 18 |
| 5.4.2 Preparation of test .....                                 | 18 |
| 5.4.3 Test method .....                                         | 18 |
| 5.4.4 Determination of dust removal ability .....               | 19 |
| 5.5 Dust removal from carpet.....                               | 20 |
| 5.5.1 Test bed .....                                            | 20 |
| 5.5.2 Preparation of test .....                                 | 20 |
| 5.5.3 Test method .....                                         | 20 |
| 5.5.4 Determination of dust removal ability .....               | 21 |
| 5.6 Medium size debris removal from hard floor .....            | 21 |
| 5.6.1 Test bed .....                                            | 21 |
| 5.6.2 Preparation of test .....                                 | 21 |
| 5.6.3 Test method .....                                         | 21 |
| 5.6.4 Determination of medium size debris removal ability ..... | 21 |
| 5.7 Medium size debris removal from carpet .....                | 22 |
| 5.7.1 Test bed .....                                            | 22 |
| 5.7.2 Preparation of test .....                                 | 22 |

|        |                                                           |    |
|--------|-----------------------------------------------------------|----|
| 5.7.3  | Test method .....                                         | 22 |
| 5.7.4  | Determination of medium size debris removal ability ..... | 22 |
| 5.8    | Large debris removal from hard floor .....                | 22 |
| 5.8.1  | Test bed .....                                            | 22 |
| 5.8.2  | Preparation of test .....                                 | 22 |
| 5.8.3  | Test method .....                                         | 24 |
| 5.8.4  | Determination of large debris removal ability .....       | 24 |
| 5.9    | Large debris removal from carpet.....                     | 24 |
| 5.9.1  | Test bed .....                                            | 24 |
| 5.9.2  | Preparation of test .....                                 | 24 |
| 5.9.3  | Test method .....                                         | 25 |
| 5.9.4  | Determination of large debris removal ability .....       | 25 |
| 5.10   | Fibre removal from carpet.....                            | 25 |
| 5.10.1 | Test bed .....                                            | 25 |
| 5.10.2 | Preparation of test .....                                 | 25 |
| 5.10.3 | Test method .....                                         | 27 |
| 5.10.4 | Determination of fibre removal ability .....              | 27 |
| 6      | Mobility.....                                             | 28 |
| 6.1    | General.....                                              | 28 |
| 6.2    | Test bed .....                                            | 29 |
| 6.3    | Preparation of test .....                                 | 29 |
| 6.3.1  | Test conditions .....                                     | 29 |
| 6.3.2  | Preconditioning of test floor .....                       | 29 |
| 6.3.3  | Pre-treatment of cleaning robot .....                     | 29 |
| 6.4    | Test method.....                                          | 29 |
| 6.4.1  | General .....                                             | 29 |
| 6.4.2  | Minimum passable gap width .....                          | 30 |
| 6.4.3  | Minimum passable height .....                             | 31 |
| 6.4.4  | Maximum passable transition height .....                  | 31 |
| 6.4.5  | Maximum passable threshold height .....                   | 32 |
| 6.5    | Determination of mobility results .....                   | 33 |
| 7      | Autonomous navigation/coverage test .....                 | 34 |
| 7.1    | General.....                                              | 34 |
| 7.2    | Preparation of test .....                                 | 34 |
| 7.2.1  | Test bed .....                                            | 34 |
| 7.2.2  | Test conditions .....                                     | 34 |
| 7.3    | Test method.....                                          | 34 |
| 7.4    | Performance measurement .....                             | 36 |
| 8      | Miscellaneous.....                                        | 38 |
| 8.1    | Energy consumption of a cleaning robot.....               | 38 |
| 8.1.1  | General .....                                             | 38 |
| 8.1.2  | Test conditions .....                                     | 38 |
| 8.1.3  | Test method .....                                         | 39 |
| 8.2    | Airborne acoustical noise .....                           | 41 |
| 8.3    | Straight-line cleaning speed.....                         | 41 |
| 8.3.1  | General .....                                             | 41 |
| 8.3.2  | Preparation.....                                          | 41 |
| 8.3.3  | Test method .....                                         | 41 |
| 8.3.4  | Determination of straight-line cleaning speed .....       | 42 |

|                                 |                                                                        |    |
|---------------------------------|------------------------------------------------------------------------|----|
| 9                               | Test material and equipment .....                                      | 44 |
| 9.1                             | Straight-line test bed.....                                            | 44 |
| 9.1.1                           | Hard floor .....                                                       | 44 |
| 9.1.2                           | Carpet .....                                                           | 44 |
| 9.2                             | Mobility test bed.....                                                 | 45 |
| 9.2.1                           | Basic test bed configuration.....                                      | 45 |
| 9.2.2                           | Minimum passable gap width – additional equipment.....                 | 46 |
| 9.2.3                           | Minimum passable height – additional equipment .....                   | 47 |
| 9.2.4                           | Maximum passable transition height – additional equipment .....        | 48 |
| 9.2.5                           | Maximum passable threshold height – additional equipment .....         | 48 |
| 9.3                             | Coverage test bed.....                                                 | 49 |
| 9.3.1                           | Floor configuration.....                                               | 49 |
| 9.3.2                           | Wall and ceiling configuration .....                                   | 55 |
| 9.3.3                           | General conditions.....                                                | 62 |
| 10                              | Instructions for use .....                                             | 63 |
| Annex A (informative)           | Calculation of coverage .....                                          | 64 |
| A.1                             | Definitions.....                                                       | 64 |
| A.2                             | Calculating orifice pass coverage.....                                 | 64 |
| Annex B (informative)           | Comprehensive cleaning performance metric .....                        | 66 |
| Annex C (informative/normative) | Detailed images of fibre removal ability.....                          | 67 |
| Bibliography                    | .....                                                                  | 72 |
| Figure 1                        | – Test mode action .....                                               | 17 |
| Figure 2                        | – Dust distribution devices .....                                      | 18 |
| Figure 3                        | – Large debris template .....                                          | 23 |
| Figure 4                        | – Large debris template hole alignment.....                            | 24 |
| Figure 5                        | – Straight-line fibre removal from carpet test bed configuration ..... | 25 |
| Figure 6                        | – Exemplary picture of fibre distribution .....                        | 26 |
| Figure 7                        | – Exemplary picture of judgement area .....                            | 27 |
| Figure 8                        | – Starting positions and orientations .....                            | 30 |
| Figure 9                        | – Minimum passable gap width test.....                                 | 30 |
| Figure 10                       | – Suggested process to determine the minimum passable gap width.....   | 31 |
| Figure 11                       | – Minimum passable height test .....                                   | 31 |
| Figure 12                       | – Maximum passable transition height test.....                         | 32 |
| Figure 13                       | – Process to determine the maximum passable transition height .....    | 32 |
| Figure 14                       | – Maximum passable threshold height test.....                          | 33 |
| Figure 15                       | – Starting positions for navigation test.....                          | 36 |
| Figure 16                       | – Exemplary graph of coverage test result.....                         | 38 |
| Figure 17                       | – Straight-line speed measurement areas .....                          | 43 |
| Figure 18                       | – Straight-line hard floor test bed configuration .....                | 44 |
| Figure 19                       | – Straight-line carpet test bed configuration .....                    | 45 |
| Figure 20                       | – Basic test bed configuration for mobility testing.....               | 45 |
| Figure 21                       | – Test bed with an additional adjustable wall.....                     | 46 |
| Figure 22                       | – Part 1 and part 2 of the wall .....                                  | 46 |
| Figure 23                       | – Test bed with an additional tunnel .....                             | 47 |

|                                                                              |    |
|------------------------------------------------------------------------------|----|
| Figure 24 – Test bed with additional transition and its sectional view ..... | 48 |
| Figure 25 – Test bed with additional threshold .....                         | 49 |
| Figure 26 – Drawings of cylindrical and rectangular thresholds .....         | 49 |
| Figure 27 – Navigation/coverage test bed configuration .....                 | 50 |
| Figure 28 – Details of obstacles around table .....                          | 51 |
| Figure 29 – Illustration of metal transition installation.....               | 53 |
| Figure 30 – Illustration of wood transition installation.....                | 53 |
| Figure 31 – Detail view of checkerboard and transitions.....                 | 54 |
| Figure 32 – Configuration of four walls and ceiling .....                    | 55 |
| Figure 33 – Illustration of four-panel door .....                            | 59 |
| Figure 34 – Illustration of window.....                                      | 59 |
| Figure 35 – Illustration of skirting board .....                             | 60 |
| Figure 36 – Illustration of pendant light .....                              | 60 |
| Figure 37 – Illustration of clock .....                                      | 61 |
| Figure 38 – Illustration of mirror .....                                     | 61 |
| Figure 39 – Illustration of picture.....                                     | 62 |
| Figure 40 – Illustration of curtains .....                                   | 62 |
| Figure A.1 – Robot coordinate frame .....                                    | 64 |
| Figure A.2 – Coverage step .....                                             | 65 |
| Figure C.1 – Detailed images for rating 1 .....                              | 67 |
| Figure C.2 – Detailed images for rating 2 .....                              | 68 |
| Figure C.3 – Detailed images for rating 3 .....                              | 69 |
| Figure C.4 – Detailed images for rating 4 .....                              | 70 |
| Figure C.5 – Detailed images for rating 5 .....                              | 71 |
| Table 1 – Tolerance of dimensions .....                                      | 14 |
| Table 2 – Medium size debris .....                                           | 21 |
| Table 3 – Large Debris .....                                                 | 23 |
| Table 4 – Rating system with exemplary pictures .....                        | 28 |
| Table 5 – List of described mobility tests .....                             | 29 |
| Table 6 – Reported results for each mobility test .....                      | 33 |
| Table 7 – Overview of duration and the values that should be reported.....   | 40 |
| Table 8 – Dimensions of furniture and obstacles .....                        | 51 |
| Table 9 – Wall and ceiling furniture .....                                   | 56 |

# INTERNATIONAL ELECTROTECHNICAL COMMISSION

## SURFACE CLEANING APPLIANCES –

### Part 7: Dry-cleaning robots for household or similar use – Methods for measuring the performance

#### FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC/ASTM 62285-7 has been prepared by subcommittee 59F: Surface cleaning appliances, of IEC technical committee 59: Performance of household and similar electrical appliances, in co-operation with ASTM Committee F11: Vacuum cleaners, under the IEC/ASTM Dual Logo Agreement.

It is published as a dual logo standard.

This first edition of IEC/ASTM 62885-7 cancels and replaces IEC 62929:2014. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC 62929:2014:

- a) the box test has been cancelled;
- b) the set of straight-line tests have been extended to contain also tests on removal of different kinds of debris both from hard floors and carpets;
- c) the set of straight-line tests also contains a test on the removal of fibres from carpets;

- d) as a miscellaneous test, a method for the determination of energy consumption has been added;
- e) a separate clause on test material and equipment has been added.

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

|              |                  |
|--------------|------------------|
| FDIS         | Report on voting |
| 59F/393/FDIS | 59F/401/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 standard, the following print types are used:

- terms defined in Clause 3: **bold type**.

A list of all parts in the IEC 62885 series, published under the general title *Surface cleaning appliances*, can be found on the IEC website.

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.

**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

In addition to the performance measurement methods that are included in this International Standard, a few more performance items have been reviewed and considered. The list of the performance items that have been discussed over time but have not yet been included comprises corner/edge dust pick-up, docking, fall-off prevention, and dust re-emissions.

The performance items that have been left out in this edition will be continuously reviewed and will soon be included in future editions of this document.