Draft for Public Comment

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx

1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex **(e.g. 3.1)**	Paragraph/ Figure/Table/Note	**Type of comment**	**Commend (justification for change) by the MB**	**Proposed change by the MB**	**Secretariat observations on each comment submitted**
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

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59F/394/CD

COMMITTEE DRAFT (CD)

PROJECT NUMBER: **IEC/ASTM 62885-6 ED2**	
DATE OF CIRCULATION: **2020-04-03**	CLOSING DATE FOR COMMENTS: **2020-06-26**
SUPERSEDES DOCUMENTS: **59F/392/RR**	

IEC SC 59F : SURFACE CLEANING APPLIANCES	
SECRETARIAT: Sweden	SECRETARY: Mr Hans Erik Rundqvist
OF INTEREST TO THE FOLLOWING COMMITTEES:	PROPOSED HORIZONTAL STANDARD: ☐ Other TC/SCs are requested to indicate their interest, if any, in this CD to the secretary.

FUNCTIONS CONCERNED:

☐ EMC ☒ ENVIRONMENT ☒ QUALITY ASSURANCE ☐ SAFETY

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

TITLE:

Surface cleaning appliances – Part 6: Wet hard floor cleaning appliances for household or similar use – Methods for measuring the performance

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SURFACE CLEANING APPLIANCES –

Part 6: Wet hard floor cleaning appliances for household or similar use – Methods for measuring the performance

FOREWORD

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International Standard IEC/ASTM 62885-6 has been prepared by a Joint Working Group of subcommittee 59F: Surface cleaning appliances, of IEC technical committee 59: Performance of household and similar electrical appliances and ASTM Committee F11: Vacuum cleaners.

This second edition of IEC/ASTM 62885-6 cancels and replace the first edition published in2018.

This edition constitutes a technical revision.

It is published as a dual logo standard.

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

FDIS	Report on voting
59F/XXX/FDIS	59F/XXX/RVD

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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.

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

In this standard, the following print types are used:

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

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.

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SURFACE CLEANING APPLIANCES –

Part 6: Wet hard floor cleaning appliances for household or similar use – Methods for measuring the performance

1 Scope

This part of IEC 62885 is applicable for measurements of the performance of **wet hard floor cleaning appliances** for household use in or under conditions similar to those in households. In the case of appliances with combined functionality, this document only addresses the wet cleaning functionality.

The purpose of this document is to specify essential performance characteristics of **wet hard floor cleaning appliances** that are of interest to users and to describe methods for measuring these characteristics.

NOTE This document is not intended for cordless and robotic wet hard floor cleaning appliances.

For safety requirements, reference is made to IEC 60335-1, IEC 60335-2-2, IEC 60335-2-10, and IEC 60335-2-54.

A recommendation on information for the consumer at the point of sale is given in Annex B.

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.

IEC 60335-1, *Household and similar electrical appliances – Safety – Part 1: General requirements*

IEC 60335-2-2, *Household and similar electrical appliances – Safety – Part 2-2: Particular requirements for vacuum cleaners and water-suction cleaning appliances*

IEC 60335-2-10*, Household and similar electrical appliances – Safety – Part 2-10: Particular requirements for floor treatment machines and wet scrubbing machines*

IEC 60335-2-54*, Household and similar electrical appliances – Safety – Part 2-54: Particular requirements for surface-cleaning appliances for household use employing liquids or steam*

IEC 60688, *Electrical measuring transducers for converting A.C. and D.C. electrical quantities to analogue or digital signals*

IEC 60734:2012, *Household electrical appliances – Performance – Water for testing*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

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

3.1
wet hard floor cleaner
electrically operated appliance that removes wet or dry stains and soils (e.g. beverage & food stains, floor grime, etc.) from a hard floor surface to be cleaned by use of water alone, a detergent solution mix, or use of steam, and can employ an air flow created by a vacuum developed within the unit, the removed material being separated in the appliance and the cleaned suction air being returned to the ambient air

3.2
steam cleaner
wet hard floor cleaner that uses steam, and generally employs a soft absorbent pad to transfer hot moisture to the floor surface and to absorb and remove the stains and soils

3.3
cleaning head
plain nozzle, pad, or brush attached to a wet hard floor cleaner that is applied to a surface to be cleaned

3.4
active nozzle
cleaning head provided with a driven agitation device to assist stain or soil removal

3.5
passive nozzle
cleaning head without any driven agitation device

3.6
floor cleaning head width
W
external maximum width of the **cleaning head** with pad

Note 1 to entry: **Floor cleaning head width** is expressed in metres.

3.7
cleaning cycle
execution of one **double stroke** to be carried out at a specified **stroke speed** over the test area

3.8
stroke pattern
arrangement of the **forward strokes** and **return strokes** on the surface to be cleaned

3.9
parallel pattern
stroke pattern where the **forward strokes** and the **return strokes** are congruent

3.10
stroke speed
speed of the **cleaning head**, moved as uniformly as possible, during a **forward stroke** or a **return stroke**

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3.11
stroke length
distance between the two parallel lines defining the limits of a stroke pattern

3.12
double stroke
one forward and one backward movement of the **cleaning head** performed in a **parallel pattern**

3.13
forward stroke
forward movement of a stroke pattern

3.14
return stroke
backward movement of a stroke pattern

4 General conditions for testing

4.1 Atmospheric conditions

Unless otherwise specified, the test procedures and measurements shall be carried out under the following conditions:

Standard atmosphere	23/50
Temperature:	(23 ± 2) °C
Relative humidity:	(50 ± 5) %
Air pressure:	86 kPa to 106 kPa

Temperature and humidity conditions within the specified ranges are required for good repeatability and reproducibility. Care should be taken to avoid changes during a test.

For test procedures and measurements, which may be carried out at conditions other than standard atmospheric conditions, the ambient temperature shall be maintained at (23 ± 5) °C.

NOTE Due to the influence of environmental conditions, variations in time, origin of test materials and proficiency of the operator, most of the described test methods will give more reliable results when applied for comparative testing of a number of appliances at the same time, in the same laboratory and by the same operator.

4.2 Test equipment and materials

Equipment and materials for measurements (devices, test surfaces, stains, soils, etc.) to be used in a test shall, prior to the test, be stored for at least 16 h at standard atmospheric conditions in accordance with 4.1.

4.3 Voltage and frequency

Unless otherwise stated, measurements shall be carried out at rated voltage with a tolerance of ±1 % and, if applicable, at rated frequency.

Wet hard floor cleaners designed for DC only shall be operated at DC. **Wet hard floor cleaners** designed for both AC and DC shall be operated at AC. **Wet hard floor cleaners** not marked with rated frequency shall be operated at either (50 ± 1) Hz or (60 ± 1) Hz with a total harmonic distortion of < 3 %, as is common in the country of use.

For **wet hard floor cleaners** with a rated voltage range, measurements shall be carried out at the mean value of the voltage range if the difference between the limits of the range does not

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exceed 10 % of the mean value. If the difference exceeds 10 % of the mean value, measurements shall be carried out at both the upper and lower limits of the voltage range.

If the rated voltage differs from the nominal system voltage of the country concerned, measurements carried out at rated voltage can give test results misleading for the consumer, and additional measurements could be required. If the test voltage differs from the rated voltage, this shall be reported.

4.4 Running-in of wet hard floor cleaners

Prior to the first test of a new **wet hard floor cleaner**, the appliance shall be kept operating for at least 30 min while dispensing cleaning liquid, steam, etc. to ensure adequate running-in. If the appliance employs a pad, the pad shall be removed. If the appliance employs a vacuum, the run-in time shall be 2 h, and the appliance shall be operated with unrestricted air flow during the run-in period. If the appliance employs an **active nozzle**, the agitation device shall be running but not in contact with the floor.

Prior to conducting any series of tests, the age, condition, and history of the product shall be recorded.

4.5 Equipment of the wet hard floor cleaner

If the **wet hard floor cleaner** is provided with a reusable pad(s) or brush that is removable without the aid of tools, it shall be cleaned and prepared according to the manufacturer's instructions prior to each measurement.

Wet hard floor cleaners with receptacles to collect dirty cleaning solutions shall be cleaned and/or maintained in accordance with relevant clauses and carried out according to the manufacturer's instructions.

4.6 Operation of the wet hard floor cleaner

The **wet hard floor cleaner** shall be used and adjusted in accordance with the manufacturer's instructions for normal operation for the test to be carried out. Height adjustment controls (if any) for the cleaning head shall be set as appropriate and the position noted. Any safety-related device shall be allowed to operate.

For a **wet hard floor cleaner** with more than one cleaning head, the **cleaning head** recommended by the manufacturer in the user instructions for cleaning tasks corresponding to the cleaning tests described in 5.1 to 5.5 shall be used. If no instructions are provided, contact the manufacturer or the **wet hard floor cleaner** shall be tested with the **cleaning head** with the largest head width for the appropriate purpose. The **cleaning head** used for each test shall be reported.

For a **cleaning head** with more than one setting, the setting recommended by the manufacturer in the user manual for cleaning tasks corresponding with the cleaning tests described in 5.1 to 5.5 shall be used. If no instructions are provided in the user manual, contact the manufacturer to determine the correct setting. If the manufacturer cannot provide the correct setting, the **cleaning head** shall be tested in its default delivery setting. The setting used for each test shall be reported.

Any electrical controls shall be set for maximum continuous operation and air flow. Unless the manufacturer's instruction states otherwise, any manually operated air by-pass openings for reduction of the suction power shall be closed, and if open, it shall be reported.

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4.7 Conditioning prior to each test

4.7.1 General

If the **wet hard floor cleaner** is unused and de-energized for more than 1 h, then the **wet hard floor cleaner** shall be kept running for at least 10 min under the provisions given in 4.4 to allow it to stabilize.

4.7.2 Preparations specific to steam cleaners

Follow the manufacturer's instructions to prepare the steam cleaner for use. When the steam cleaner is ready for operation (after the heating-up phase), produce steam for 15 s to remove any air and/or condensed water from the steam conduits in the appliance to ensure proper priming of the system. Prior to any test, a clean pad is to be installed on the **cleaning head**, which has been washed and thoroughly dried in accordance with the manufacturer's instructions. This step is necessary to ensure no foreign substances on a new or used pad will affect the test results. Place the **cleaning head** on a clean floor surface and produce steam for 15 s to moisten the pad.

4.7.3 Preparations for other wet hard floor cleaners

Follow the manufacturer's instructions for preparing and priming the product for floor cleaning use.

4.8 Mechanical operator

In order to achieve reliable results, certain tests require the **cleaning head** to be moved at uniform speed over the test area and without exerting an additional force pressing the **cleaning head** against the test surface.

It is recommended to simulate the handling of the **wet hard floor cleaner** by using a mechanical operator such as that described in 7.3.1. The handle of the cleaner shall be attached to the linear drive so that its centre pivots at a height of (800 ± 50) mm above the test surface. For nozzles without pivoting connectors, it shall be ensured that the bottom of the **cleaning head** be made parallel with the test surface by adjusting the handle height within the tolerances. Any adjustment shall be reported.

The linear drive may be motorized or operated by hand. The method of operation shall be reported.

4.9 Number of samples

All measurements of performance shall be carried out on the same sample(s) of the **wet hard floor cleaner**.

For increased confidence in the test results, a minimum of three samples of a **wet hard floor cleaner** should be tested.

Tests carried out to simulate stresses that a **wet hard floor cleaner** can be exposed to during normal use, possibly causing impairment of the cleaner's performance, can require additional samples of replaceable parts. Such tests shall be carried out at the end of the test programme.

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