IEC TS 62885-1

Edition 3.0 2020-10

TECHNICAL SPECIFICATION

colour inside

Surface cleaning appliances –
Part 1: General requirements on test material and test equipment

IEC TS 62885-1:2020-10(en)

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 97.080

ISBN 978-2-8322-8856-6

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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- the required support cannot be obtained for the publication of an International Standard, despite repeated efforts, or
- the subject is still under technical development or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC TS 62885-1, which is a technical specification, has been prepared by subcommittee 59F: Surface cleaning appliances, of IEC technical committee 59: Performance of household and similar electrical appliances.

This third edition cancels and replaces the second edition published in 2016. This edition constitutes a technical revision.

This edition includes the following significant technical change with respect to the previous edition:

a) Clauses 4 and 5 on test carpets have been combined into the new Clause 4;
b) a new Clause 5 has been added containing specifications and treatment of various kinds of test dust;
c) a level loop test carpet specification has been added.

The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
59F/390/DTS	59F/402/RVDTS

Full information on the voting for the approval of this technical specification 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.

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- withdrawn,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

IEC subcommittee 59F has agreed to make a collection of test material and test equipment used in standards for testing surface cleaning appliances and to publish this collection as a technical specification. The existing annexes published on the IEC web will be integrated in this technical specification step by step.

Regular maintenance of the technical specification ensures that other standards which refer to this TS always reference the current status regarding test material and test equipment.

This third edition complements the specification of the Wilton test carpet in the second edition with the specification of a level loop test carpet and information on pre-treatment of test carpets.

Furthermore, the specification of various types of test dust has been included. Further test material and test equipment specifications will follow.

The intention with this document is to ensure a minimum of test material types and common use of these materials in tests of various surface cleaning appliances.

For information on supplies of test materials and details of test equipment, see Annex A.

Annex D provides general information relative to the various categories of dry vacuum cleaners.

SURFACE CLEANING APPLIANCES –

Part 1: General requirements on test material and test equipment

1 Scope

This part of IEC 62885 specifies the physical characteristics of test equipment and material used in tests common to several products covered by the IEC 62885 series for surface cleaning appliances. In addition, it provides guidance regarding the evaluation of Wilton and other types of carpets to determine their acceptability for testing and pre-treatment of test dust.

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 62885-2:–[1], *Surface cleaning appliances – Part 2: Dry vacuum cleaners for household or similar use – Methods for measuring the performance*

ISO 1763, *Textile floor coverings – Determination of number of tufts and/or loops per unit length and per unit area*

ISO 1765, *Machine-made textile floor coverings – Determination of thickness*

ISO 1766, *Textile floor coverings – Determination of thickness of pile above the substrate*

ISO 1833-1, *Textiles – Quantitative chemical analysis – General principles of testing*

ISO 2060, *Textiles – Yarn from packages – Determination of linear density (mass per unit length) by the skein method*

ISO 2061, *Textiles – Determination of twist in yarns – Direct counting method*

ISO 2424, *Textile floor coverings – Vocabulary*

ISO 4032, *Hexagon nuts (style 1) – Product grades A and B*

ISO 4766, *Slotted set screws with flat point*

ISO 6989, *Textile fibres – Determination of length and length distribution of staple fibres (by measurement of single fibres)*

ISO 8543, *Textile floor coverings – Methods for determination of mass*

ISO 13320, *Particle size analysis — Laser diffraction methods*

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1 Under preparation. Stage at the time of publication: IEC AFDIS 62885-2:2020.

BS 4223, *Methods for determination of constructional details of carpets with yarn pile*

BS 8459, *Determination of extractable matter in textiles – Method*

DIN 1587, *Hexagon domed cap nuts*

EN 1307, *Textile floor coverings – Classification*

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

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interlaboratory testing
testing the same samples in different laboratories, with different operators, and comparing the results

4 Carpet construction specification

4.1 General

Test carpets shall be manufactured to the specifications provided in Table 1 and Table 2. Given that wool is a natural fibre, it should be understood that some variability exists in the final product.

The carpets used for performance testing of vacuum cleaners are classified and specified in accordance with the characteristics in Table 1 and Table 2.

The pile direction is predefined for tests on cut pile carpets (like the Wilton test carpet). Usually the pile direction of the test carpet is specified by the manufacturer. In Annex C several methods for determining pile direction are provided.

Table 1 – Wilton test carpet construction specifications

Type	Wilton	Tolerance	Test method/Standard
Pile composition	wool 8,6/2*2		
Yarn count	8,6/2*2		ISO 2060
Wool composition	80 % New Zealand – 20 % British		ISO 1833-1
Average fibre length	80/85 mm		ISO 6989
Spinning process	semi-worsted		
Spin rotations per metre	270		ISO 2061
Spin rotation direction	Z		ISO 2061
Ply twist coefficient	155		ISO 2061
Twisted rotation direction	S		ISO 2061
Moth protection treatment	0,1 % fermentol 12 %		
Colour dye (pigment)	metal complex dye: type Neolan		
Residual oil content	< 0,60		BS 8459
Method of manufacturing	Wilton fabric – Jackard weaving		ISO 2424
Colour	dark, one colour		ISO 2424
Backing	jute and cotton + latex		ISO 2424
Type	cut – pile		ISO 2424
Total thickness	9,2 mm	±5 %	ISO 1765
Thickness of pile above the substrate	6,6 mm	±5 %	ISO 1766
Total mass/m^2	2 300 g/m^2	±5 %	ISO 8543
Total mass of pile above the substrate/m^2 (effective pile not the total pile, determined on finished carpet)	1 260 g/m^2	±5 %	ISO 8543
Number of tufts/m^2	96 000 knots/m^2	±5 %	ISO 1763
Tuft density	96 knots/dm^2	±6 %	BS 4223
Reed	320 r/mots/dm		
Shots	300 sh/m		
Standard manufactured width	250 cm		
Latex – Specification	CTF2000 TEXCOAT M.BC 5 Polymer for pile anchorage		

Table 2 – Level loop test carpet construction specifications

Type	Woven level loop	Tolerance	Test method/Standard
Pile composition	wool 4,3		
Yarn count	4,2/3		ISO 2060
Yarn Blend	80/20 wool – PA6, (nylon)6		
Wool composition	50 % New Zealand – 50 % British		ISO 1833
Average fibre length	80 mm		ISO 6989
Spinning process	carded wool		
Spin rotations per metre	205		ISO 2061
Spin rotation direction	Z		ISO 2061
Ply twist coefficient	205		ISO 2061
Twisted rotation direction	S		ISO 2061
Moth protection treatment	0,1 % eulan		
Colour dye (pigment)	yellow chemacide E2GL, red alpacideLBG,blue alizarine		
Residual oil content	< 0,40%		BS 8459
Method of manufacturing	Jackard weaving		ISO 2424
Colour	dark, one colour		ISO 2424
Backing	jute and synthetic + latex		ISO 2424
Type	loop pile		ISO 2424
Total thickness	7,0 mm	± 5 %	ISO 1765
Thickness of pile above the substrate	4,7 mm	± 5 %	ISO 1766
Total mass/m²	1 832 g/m² gcdt	± 5 %	ISO 8543
Total mass of pile above the substrate/m² (effective pile not the total pile, determined on finished carpet)	843 g/m² gecdt	± 5 %	ISO 8543
Number of tufts/m²	105 805	± 5 %	ISO 1763
Tuft density	see number of knots	± 6 %	BS 4223
Reed	320		
Shots	320		
Standard manufactured width	68 cm		
Use class	XXX		EN 1307
Latex – Specification	TX 9262		

4.2 Construction verification

4.2.1 General

The new carpet shall meet the construction specifications provided in Table 1. and Table 2.

Annex B provides an example of an evaluation of the initial production run of the production lot BIC4 of the Wilton test carpet.