PD IEC/TS 62885-1:2016

BSI Standards Publication

Surface cleaning appliances

Part 1: General requirements on test material and test equipment

bsi.

National foreword

This Published Document is the UK implementation of IEC/TS 62885-1:2016.

The UK participation in its preparation was entrusted by Technical Committee CPL/59, Performance of household electrical appliances, to Subcommittee CPL/59/6, Floor treatment appliances.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Published by BSI Standards Limited 2016

ISBN 978 0 580 93486 5
ICS 97.080

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 30 November 2016.

Amendments/corrigenda issued since publication

Date	Text affected

IEC TS 62885-1

Edition 1.0 2016-08

TECHNICAL SPECIFICATION

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

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 97.080

ISBN 978-2-8322-3598-0

CONTENTS

FOREWORD....3
INTRODUCTION....5
1 Scope....6
2 Normative references....6
3 Terms and definitions....6
4 Carpet construction specification....7
4.1 Wilton carpet....7
4.2 Verification of new carpets....8
4.2.1 Construction verification....8
4.2.2 Performance verification....8
Annex A (informative) Initial production run of the BIC4 Wilton carpet....9

Table 1 – Wilton carpet construction specifications....7
Table A.1 – Test results for BIC4 Wilton carpets....9

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

SURFACE CLEANING APPLIANCES –

Part 1: General requirements on test material and test equipment

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.

The main task of IEC technical committees is to prepare International Standards. In exceptional circumstances, a technical committee may propose the publication of a technical specification when

- 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.

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

Enquiry draft	Report on voting
59F/295A/DTS	59F/306/RVC

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 publication 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 publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

IEC technical subcommittee 59F has agreed to make a collection of existing and future test equipment and materials used in testing surface cleaning equipment and to publish this collection as a Technical Specification, which it intends to keep up to date. The existing Annexes published on the IEC web will be integrated in this Technical Specification step by step.

This first edition includes only the Wilton carpet for interlaboratory tests. Further carpet specifications may follow.

It is also the intention to supplement this Technical Specification with other test materials and WG 9 (Surface cleaning appliances – Review of test carpets specification and carpet availability and supply) is currently looking into possibilities to add specifications concerning the various kinds of dust used.

With this initiative SC 59F will ensure a minimum of test material types and common use of these materials in tests of various surface cleaning appliances.

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 for several products covered by standards in 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.

NOTE Currently, this specification covers only the Wilton carpet.

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 62885-2:2016, *Surface cleaning appliances – Part 2: Dry vacuum cleaners for household or similar use – Methods for measuring the performance*

ISO 1763, *Carpets – 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, *Textiles – Binary fibre mixtures – Quantitative chemical analysis*

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 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*

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

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

3 Terms and definitions

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

3.1
interlaboratory testing
testing the same samples in different laboratories, with different operators, and comparing the results

4 Carpet construction specification

4.1 Wilton carpet

The Wilton carpet shall be woven from wool yarn to the specifications provided in Table 1. Given that wool is a natural fibre, it should be understood that some variability would exist in the final product.

The carpet used for performance testing of vacuum cleaners is classified and specified by the following characteristics.

Table 1 – Wilton 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
Average fiber length	80/85 mm		ISO 6989
Spinning process	Semi-worsted		
Spin rotations per meter	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 %		
Color dye (pigment)	metal complex dye: type Neolan		
Residual oil content	<0,60		BS 8459
Method of manufacturing	Wilton fabric – Jackard weaving		ISO 2424
Color	Dark, one color		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	960	±6 %	BS 4223
Reed	320 r/m		
Shots	300 sh/m		

Type	Wilton	Tolerance	Test method/Standard
Standard manufactured width	250 cm		
Latex – Specification	CTF2000 TEXCOAT M.BC 5 Polymer for pile anchorage		

4.2 Verification of new carpets

4.2.1 Construction verification

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

Annex A provides an example of an evaluation of the initial production run of BIC4 carpeting.

4.2.2 Performance verification

Additionally, interlaboratory testing shall be conducted to verify the measured performance values for the RSB vacuum cleaner with the passive nozzle and an active vacuum cleaner. A minimum of six laboratories shall test the same vacuum cleaners on samples of the new carpet and the previous carpet unique to each laboratory. Each carpet shall be tested in accordance with IEC 62885-2:2016, 5.3 and 6.2 by each laboratory and the results of the two carpets shall be compared to determine differences between the old and new production runs as well as overall variability of the new production run.

Annex A
(informative)

Initial production run of the BIC4 Wilton carpet

Table A.1 shows the evaluation of the test results of BIC4 Wilton carpets.

Table A.1 – Test results for BIC4 Wilton carpets

Reference	Measured values
Construction	Woven, cut-pile Wilton
Material	Wool
Row	30,1 ± 0,1
Pitch	32,7 ± 0,2
Tuft density	(985 ± 7) dm^2
Total carpet weight	(2 222 ± 97) g/m^2
Pile weight above substrate	(1 249 ± 40) g/m^2
Total carpet thickness	(8,8 ± 0,5) mm
Pile thickness above substrate	(6,6 ± 0,4) mm
Surface pile density	(0,185 ± 0,003) g/cm^3
Oil content of pile	(0,004 8 ± 0,000 8) %

This page deliberately left blank

This page deliberately left blank

British Standards Institution (BSI)

BSI is the national body responsible for preparing British Standards and other standards-related publications, information and services.

BSI is incorporated by Royal Charter. British Standards and other standardization products are published by BSI Standards Limited.

About us

We bring together business, industry, government, consumers, innovators and others to shape their combined experience and expertise into standards -based solutions.

The knowledge embodied in our standards has been carefully assembled in a dependable format and refined through our open consultation process. Organizations of all sizes and across all sectors choose standards to help them achieve their goals.

Information on standards

We can provide you with the knowledge that your organization needs to succeed. Find out more about British Standards by visiting our website at bsigroup.com/standards or contacting our Customer Services team or Knowledge Centre.

Buying standards

You can buy and download PDF versions of BSI publications, including British and adopted European and international standards, through our website at bsigroup.com/shop, where hard copies can also be purchased.

If you need international and foreign standards from other Standards Development Organizations, hard copies can be ordered from our Customer Services team.

Copyright in BSI publications

All the content in BSI publications, including British Standards, is the property of and copyrighted by BSI or some person or entity that owns copyright in the information used (such as the international standardization bodies) and has formally licensed such information to BSI for commercial publication and use.

Save for the provisions below, you may not transfer, share or disseminate any portion of the standard to any other person. You may not adapt, distribute, commercially exploit, or publicly display the standard or any portion thereof in any manner whatsoever without BSI's prior written consent.

Storing and using standards

Standards purchased in soft copy format:

- A British Standard purchased in soft copy format is licensed to a sole named user for personal or internal company use only.
- The standard may be stored on more than 1 device provided that it is accessible by the sole named user only and that only 1 copy is accessed at any one time.
- A single paper copy may be printed for personal or internal company use only.

Standards purchased in hard copy format:

- A British Standard purchased in hard copy format is for personal or internal company use only.
- It may not be further reproduced – in any format – to create an additional copy. This includes scanning of the document.

If you need more than 1 copy of the document, or if you wish to share the document on an internal network, you can save money by choosing a subscription product (see 'Subscriptions').

Reproducing extracts

For permission to reproduce content from BSI publications contact the BSI Copyright & Licensing team.

Subscriptions

Our range of subscription services are designed to make using standards easier for you. For further information on our subscription products go to bsigroup.com/subscriptions.

With **British Standards Online (BSOL)** you'll have instant access to over 55,000 British and adopted European and international standards from your desktop. It's available 24/7 and is refreshed daily so you'll always be up to date.

You can keep in touch with standards developments and receive substantial discounts on the purchase price of standards, both in single copy and subscription format, by becoming a **BSI Subscribing Member**.

PLUS is an updating service exclusive to BSI Subscribing Members. You will automatically receive the latest hard copy of your standards when they're revised or replaced.

To find out more about becoming a BSI Subscribing Member and the benefits of membership, please visit bsigroup.com/shop.

With a **Multi-User Network Licence (MUNL)** you are able to host standards publications on your intranet. Licences can cover as few or as many users as you wish. With updates supplied as soon as they're available, you can be sure your documentation is current. For further information, email subscriptions@bsigroup.com.

Revisions

Our British Standards and other publications are updated by amendment or revision.

We continually improve the quality of our products and services to benefit your business. If you find an inaccuracy or ambiguity within a British Standard or other BSI publication please inform the Knowledge Centre.

Useful Contacts

Customer Services
Tel: +44 345 086 9001
Email (orders): orders@bsigroup.com
Email (enquiries): cservices@bsigroup.com

Subscriptions
Tel: +44 345 086 9001
Email: subscriptions@bsigroup.com

Knowledge Centre
Tel: +44 20 8996 7004
Email: knowledgecentre@bsigroup.com

Copyright & Licensing
Tel: +44 20 8996 7070
Email: copyright@bsigroup.com

BSI Group Headquarters

389 Chiswick High Road London W4 4AL UK

bsi.