

PUBLICLY AVAILABLE SPECIFICATION

PRE-STANDARD



Clothes washing machines for commercial use – Methods for measuring the performance

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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CONTENTS

FOREWORD.....	8
1 Scope.....	10
2 Normative references	10
3 Terms, definitions and symbols.....	11
3.1 Terms and definitions.....	11
3.2 Symbols.....	14
3.2.1 Symbols relating to 9.2 – washing performance	14
3.2.2 Symbols relating to 9.3 – water extraction (spinning)	15
3.2.3 Symbols relating to 9.4 – energy, water and time.....	15
3.2.4 Symbols relating to Annex F	15
3.2.5 Symbols relating to Annex G.....	16
4 Requirements	16
4.1 General.....	16
4.2 Rated Capacity	16
4.3 Dimensions	17
5 Test conditions, materials, equipment and instrumentation	17
5.1 General.....	17
5.2 Reference machine	18
5.3 Ambient conditions.....	18
5.3.1 Electricity supply	18
5.3.2 Water supply	18
5.3.3 Ambient temperature and humidity.....	19
5.4 Test materials	20
5.4.1 General	20
5.4.2 Base load	20
5.4.3 Stain test strips.....	20
5.4.4 Detergents.....	21
5.5 Equipment	21
5.5.1 General	21
5.5.2 Reference machine.....	21
5.5.3 Spectrophotometer	21
5.5.4 Equipment for conditioning the base load	22
5.5.5 Iron for preparation of stain test strips after washing.....	22
5.5.6 Other equipment.....	22
5.6 Instrumentation and accuracy	23
5.6.1 General	23
5.6.2 Instruments	23
5.6.3 Measurements	24
6 Preparation for testing	24
6.1 General.....	24
6.2 Test washing machine and reference machine preparation	24
6.2.1 Test washing machine	24
6.2.2 Reference machine.....	25
6.3 Detergent.....	25
6.3.1 General	25
6.3.2 Detergent dose	26

6.3.3	Mixing detergent	26
6.3.4	Detergent placement	26
6.3.5	Placing detergent into the drum base	26
6.4	Test loads	27
6.4.1	General	27
6.4.2	Pre-treatment of new base load items prior to use	28
6.4.3	Requirements regarding the maximum age of base load items	28
6.4.4	Normalization of base load items before a new test series	28
6.4.5	Conditioning of base load items before a new test series	29
6.4.6	Test load composition	30
6.4.7	Calculation of loads not shown in Table 3	32
6.4.8	Addition of stain test strips to the base load	32
7	Performance measurements – general requirements	33
8	Tests for performance	33
8.1	General	33
8.2	Test procedure for performance tests	34
8.2.1	Test conditions, materials and preparation for testing	34
8.2.2	Test load and loading	34
8.2.3	Programme	34
8.2.4	Test procedure	34
8.2.5	Test series	35
8.3	Measurements to determine washing performance	35
8.3.1	General	35
8.3.2	Removal and drying of stain test strips	35
8.3.3	Assessment of stain test strips	36
8.4	Measurements to determine maximum spin speed	36
8.5	Measurements to determine water extraction performance	37
8.5.1	General	37
8.5.2	Washing machines	37
8.5.3	Spin extractors	37
8.6	Measurement to determine the bath temperature	37
8.7	Measurements to determine water and energy consumption and programme time	38
8.7.1	General	38
8.7.2	Procedure	38
8.7.3	Measurement of energy supplied by electricity	38
8.7.4	Measurement of energy supplied by steam	38
8.7.5	Measurement of energy supplied by gas	38
8.7.6	Measurement of energy consumed via compressed air	38
9	Assessment of performance	39
9.1	General	39
9.2	Evaluation of washing performance	39
9.3	Evaluation of water extraction performance	41
9.4	Evaluation of water and energy consumption and programme time	41
9.4.1	General	41
9.4.2	Water volumes	41
9.4.3	Bath temperature	41
9.4.4	Programme time	41
9.4.5	Energy consumption	42

10	Data to be reported.....	43
Annex A	(normative) Specification of stain test strips with standardized soiling.....	44
A.1	Artificial soils	44
A.2	Supporting fabric for soil	44
A.2.1	Material	44
A.2.2	Weaving	44
A.2.3	Pre-treatment	45
A.2.4	Reproducibility.....	45
A.3	Artificial soil	45
A.3.1	Soiling composition.....	45
A.4	Stain test strips	46
A.4.1	Application of soil	46
A.4.2	Soil checking after deposition of soil.....	46
A.4.3	Washed reflectance values	46
A.5	Marking of stain test strips and accompanying data	47
A.6	Advice for users	47
A.7	Suppliers	47
Annex B	(normative) Reference detergents – Reference detergent A*	48
Annex C	(normative) Specifications for base load – Cotton/synthetics base loads.....	50
Annex D	(normative) Reference machine specification – Specification of the reference washing machines and method of use.....	52
D.1	General.....	52
D.2	Further Information	52
D.3	Reference machine: method of use.....	52
D.3.1	Installation of the reference machine	52
D.3.2	Regular maintenance.....	52
D.3.3	Before test series	53
D.3.4	During a test series	54
Annex E	(normative) Reference machine programme definitions.....	55
E.1	General.....	55
E.2	Programming instructions	55
E.3	Tolerances.....	55
E.4	Start-up programme	55
Annex F	(normative) The bone-dry method of conditioning.....	58
F.1	General.....	58
F.2	Tumble dryer specifications	58
F.3	Bone dry procedure – Electric dryers	58
F.4	Bone dry procedure – Gas dryers.....	59
Annex G	(normative) Folding and loading the test load	60
G.1	General.....	60
G.2	Folding the items prior to loading the washing machine	60
G.2.1	General	60
G.2.2	Test load	60
G.3	Loading Items into the washing machine – general rules.....	62
G.3.1	Machine type	62
G.3.2	Loading sequences.....	63
G.4	Loading requirements for the test load – horizontal axis washing machines	65
G.4.1	General loading directions	65

G.4.2	Horizontal axis washing machine: loading step by step	65
G.4.3	Loading the horizontal axis machines	68
G.5	Loading requirements for vertical axis washing machines	69
G.5.1	General loading directions	69
G.5.2	Vertical axis washing machine: loading step by step	69
G.6	Loading of multi compartment machines	69
G.6.1	General loading information	69
G.6.2	Loading procedure	69
G.7	Performance testing with loads other than a full load – General information	69
G.8	Calculation of the composition of test load items for load sizes above 10 kg and not shown in the Table 2 or Table 3	69
G.8.1	General	69
G.8.2	Calculation of the load composition is done according to following formula:	69
Annex H (normative)	Measuring the bath temperature	71
H.1	General	71
H.2	Specification of the loggers	71
H.3	Preparation of the loggers before measurement	71
H.4	Number of loggers	71
H.5	Measuring the temperature	72
H.6	Presenting the result	72
Annex I (informative)	Performance testing of gas fired washing machines	73
I.1	General	73
I.2	Installation, testing procedure and calculation of supplied gas energy	73
Annex J (normative)	Performance testing of steam heated washing machines	74
J.1	General	74
J.2	Types of steam heating	74
J.2.1	Direct steam heating	74
J.2.2	Indirect steam heating	74
J.3	Specification of steam properties	74
J.3.1	Type of steam	74
J.3.2	Steam generator	74
J.4	Equipment and instrumentation	74
J.4.1	Test equipment for measuring the characteristics of steam	74
J.4.2	Instruments	75
J.4.3	Measurements	75
J.5	Installation	76
J.5.1	General	76
J.5.2	Installation of the measure equipment for direct steam heated washing machines	76
J.5.3	Installation of the measurement equipment for indirect steam heated washing machines (alternative 1)	77
J.5.4	Installation of the measurement equipment for indirect steam heated washing machines (alternative 2)	77
J.6	Preparation for testing	78
J.6.1	General	78
J.6.2	Direct heated washing machines and indirect heated washing machines installed according to alternative 1	78
J.6.3	Indirect heated washing machines installed according to alternative 2	79
J.7	Tests for performance	79

J.7.1	General	79
J.7.2	Performance testing of direct steam heated washing machines.....	79
J.7.3	Performance testing of indirect steam heated washing machines installed according to alternative 1	79
J.7.4	Performance testing of indirect heated washing machines installed according to alternative 2	80
J.8	Assessment of performance	81
J.8.1	General	81
J.8.2	Evaluation of performance of direct steam heated washing machines	81
J.8.3	Evaluation of performance of indirect heated washing machines installed according to Alternative 1	81
J.8.4	Evaluation of performance of indirect heated washing machines installed according to Alternative 2	82
J.8.5	Evaluation of total energy supplied to the washing machine by steam.....	82
J.9	Data to be reported	82
Annex K (normative) Procedure to determine test load size when rated capacity is not declared.....		83
K.1	General.....	83
K.2	Determination of the test load mass	83
K.3	Determination of the drum volume.....	83
Annex L (informative) Uncertainty of measurements in the present document		87
L.1	Why is uncertainty important?	87
L.2	Documents referenced in this annex	87
L.3	Ways to access uncertainty.....	87
L.3.1	General	87
L.3.2	The bottom up method.....	87
L.3.3	The top down method	88
L.4	Uncertainty of measurement in the present document	88
L.5	Reporting uncertainty.....	89
Annex M (normative) Test report – Data to be reported.....		90
M.1	General.....	90
M.2	Data for test washing machine	90
M.3	Data, parameters and results for the test series	90
M.4	Materials used for the test series	94
M.5	Standard Equipment used for the test series	95
Annex N (informative) Sources of materials and supplies.....		97
N.1	General.....	97
N.2	Suppliers for Reference Machine	97
N.3	Suppliers for Test Materials	97
Bibliography.....		98
Figure 1 – Load item preparation prior to a test series		28
Figure 2 – Attached test strip		32
Figure 3 – Positions for measuring soiled test pieces.....		36
Figure G.1 – Folding medium sheet with a stain test strip attached		61
Figure G.2 – Folding small sheet		61
Figure G.3 – Folding medium sheets.....		62
Figure G.4 – Folding large sheets		62

Figure G.5 – Illustration of horizontal axis washing machine	63
Figure G.6 – Illustration of vertical axis washing machine	63
Figure G.7 – Horizontal axis washing machine: placement of items in the drum	64
Figure G.8 – Vertical axis washing machine: placement of items in the drum	65
Figure G.9 – Schematic view of part loads within a large drum.....	68
Figure J.1 – Schematic installation of the measurement equipment for direct steam heated washing machines	76
Figure J.2 – Schematic installation of the measurement equipment for indirect steam heated washing machine (alternative 1)	77
Figure J.3 – Schematic installation of the measurement equipment for indirect steam heated washing machine (Alternative 2).....	78
Figure K.1 – Cross section of drum and lifter	84
Figure K.2 – Figure showing how the drum diameter d shall be measured for different kind of drum perforation	84
Figure K.3 – Definition of volumes V_3 to V_6	85
Figure K.4 – Definition of volume V_1 and V_2	86
Table 1 – Size and mass of the different base load items.....	20
Table 2 – Detergent Dose	26
Table 3 – Number of different load items in the test load for various test load masses	31
Table A.1 – Ratios and tolerances of standardized soils: Reference Machine CLS.....	47
Table B.1 – Composition of the reference detergent A*	48
Table C.1 – Specification of the cotton/synthetics base loads	50
Table D.1 – Description of the reference washing machine and method of use	53
Table E.1 – Specification of reference washing programme	56
Table E.2 – Tolerances given for some procedure parameters	57
Table G.1 – Orientation of test load items within a part load	65
Table G.2 – Part load items for a 15 kg test load	66
Table G.3 – Part load items for a 5 kg test load	67
Table G.4 – Part load items for a 10 kg test load	67
Table G.5 – Part load items for a 20 kg test load	67
Table G.6 – Part load items for a 100 kg test load.....	68
Table H.1 – Specification of temperature logger suitable for temperature measurement for both washing and drying	71
Table H.2 – Number of temperature loggers for bath temperature measurement	72
Table M.1 – Data for test washing machine.....	90
Table M.2.1 – Data, parameters and results.....	91
Table M.2.2 – Performance results of the test washing machine	94
Table M.3 – Materials	95
Table M.4 – Equipment	96

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**CLOTHES WASHING MACHINES FOR COMMERCIAL USE –
METHODS FOR MEASURING THE PERFORMANCE**

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The text of this PAS is based on the following document:

This PAS was approved for publication by the P-members of the committee concerned as indicated in the following document

Draft PAS	Report on voting
59D/448/DPAS	59D/452/RVDPAS

Following publication of this PAS, which is a pre-standard publication, the technical committee or subcommittee concerned may transform it into an International Standard.

This document is based on CLC/TS 50640:2015.

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CLOTHES WASHING MACHINES FOR COMMERCIAL USE – METHODS FOR MEASURING THE PERFORMANCE

1 Scope

This PAS specifies methods for measuring the performance of clothes **washing machines** for **commercial** use utilizing cold and/or hot water supplies and without heating or with heating devices for electricity, steam or gas. It also deals with appliances for both washing and drying textiles (**washer-dryers**) with respect to their washing-related functions. This PAS covers top, front and side-loaded non-household **washing machines** with horizontal or vertical axes and with one or more wash compartments.

NOTE 1 Non household tumble dryer performance is assessed to CLC/TS 50594.

The object is to state and define the principal performance characteristics of non-household **washing machines** and to describe the test methods for measuring these characteristics.

NOTE 2 This PAS does not apply to continuous batch **washing machines** (e.g. tunnel washers) or **washing machines** only possible to operate with automatic loading and unloading.

NOTE 3 This PAS does not specify safety requirements for **non-household washing machines**. Safety requirements are specified in EN 50571 and the EN ISO 10472 series.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60456, *Clothes washing machines for household use – Methods for measuring the performance*

EN 12127, *Textiles – Fabrics – Determination of mass per unit area using small samples*

EN 12953-10, *Shell boilers – Part 10: Requirements for feedwater and boiler water quality*

EN 50571, *Household and similar electrical appliances – Safety – Particular requirements for commercial electric washing machines*

EN 60734, *Household electrical appliances – Performance – Water for testing* (IEC 60734)

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

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

EN ISO 3759, *Textiles – Preparation, marking and measuring of fabric specimens and garments in tests for determination of dimensional change* (ISO 3759)

EN ISO 11664-2, *Colorimetry – Part 2: CIE standard illuminants* (ISO 11664-2)

EN ISO 80000-1:2013, *Quantities and units – Part 1: General* (ISO 80000-1:2009 + Cor 1:2011)

DIN 53923, *Testing of textiles; determination of water absorption of textile fabrics*

CIE 015:2004¹, *Colorimetry* (3rd edition)

IAPWS-IF97, *IAPWS Industrial Formulation 1997 for the Thermodynamic Properties of Water and Steam [International Association for the Properties of Water and Steam]*

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