



SLOVENSKI STANDARD
SIST EN 61121:2013/oprAB:2024
01-maj-2024

Gospodinjski sušilni stroji - Metode za merjenje učinkovitost delovanja - Dopolnilo AB

Tumble dryers for household use - Methods for measuring the performance

Wäschetrockner für den Hausgebrauch - Verfahren zur Messung der Gebrauchseigenschaften

Sèche-linge à tambour à usage domestique - Méthodes de mesure de l'aptitude à la fonction

Ta slovenski standard je istoveten z: EN 61121:2013/prAB:2024

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ICS:

97.060 Aparati za nego perila Laundry appliances

SIST EN 61121:2013/oprAB:2024 en

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
EN 61121:2013

prAB

March 2024

ICS 97.060

Will supersede EN 61121:2013/A11:2019

English Version

Tumble dryers for household use - Methods for measuring the performance

Sèche-linge à tambour à usage domestique - Méthodes de mesure de l'aptitude à la fonction

Wäschetrockner für den Hausgebrauch - Verfahren zur Messung der Gebrauchseigenschaften

This draft amendment prAB, if approved, will modify the European Standard EN 61121:2013; it is submitted to CENELEC members for enquiry.

Deadline for CENELEC: 2024-05-31.

It has been drawn up by CLC/TC 59X.

If this draft becomes an amendment, CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

This draft amendment was established by CENELEC 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.

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

[SIST EN 61121:2013/oprAB:2024](https://standards.iteh.ai/document/preview/61121-2013/oprAB-2024)

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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

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28 European foreword

29 This document (EN 61121:2013/prAB:2024) has been prepared by CLC/TC59X WG01-09 "Dryer".

30 This document is currently submitted to the Enquiry.

31 The following dates are proposed:

- latest date by which the existence of this document has to be announced at national level (doa) dor + 6 months
- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) dor + 12 months
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) dor + 36 months (to be confirmed or modified when voting)

32 This document will supersede the amendment EN 61121:2013/A11:2019 and corrigenda (if any).

33 This document is read in conjunction with EN 61121:2013.

34 EN 61121:2013/prAB:2024 includes the following significant technical changes with respect to
35 EN 61121:2013/A11:2019:

- 36 a) the **programme** to be tested for the **combined test series** is the new introduced **eco programme**;
- 37 b) the maximum time of the phase without pre-conditioning of the **tumble dryer** between two **test runs** is
38 extended to 96 h;
- 39 c) the requirement to adjust the water used to the pH-value is omitted;
- 40 d) a loading procedure for the **tumble dryer** is introduced; [prAB:2024](https://standards.iteh.ai/catalog/standards/sist/23d8d6fe-dae4-4d4e-a80e-1e895f00bb68/sist-en-61121-2013-oprab-2024)
- 41 e) addition of an alternative ambient air climate for **conditioning** the **test load**;
- 42 f) the validity of a **test run** and the validity of a **test series** has been revised;
- 43 g) the method to pre-age **test load** items for creation of a new **test load** is modified;
- 44 h) the method to calculate a pooled standard deviation has been deleted;
- 45 i) a calculation method for the average final moisture content has been added.
- 46 j) specific weighting factors are introduced for the calculation of the weighted average value of the **combined**
47 **test series** and
- 48 k) Annex ZB Tolerances and control procedures is deleted. Annex ZB is replaced by a new Annex ZB which
49 defines the testing procedure for **multi-drum tumble dryers**.
- 50 l) the procedure to measure low power modes is modified (see Annex ZD).

51 Annex ZA sets out the procedure to be applied for testing according to Commission Regulations with regard to
52 energy labelling and ecodesign and provides all necessary links to all relevant clauses of this European
53 Standard.

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54 This document has been prepared under a standardization request addressed to CENELEC by the European
55 Commission. The Standing Committee of the EFTA States subsequently approves these requests for its
56 Member States.

57 For the relationship with EU Legislation, see informative Annexes ZZA and ZZB, which are an integral part of
58 this document.

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59 **1 Modifications to Clause 2, “Normative references”**

60 **Replace** the reference to IEC 60734 with its dated reference:

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

62 **Add** the following reference:

63 EN IEC 63474:2023, *Electrical and electronic household and office equipment - Measurement of networked standby power consumption of edge equipment*

65 **Replace** the reference to EN 60704-2-6 with its dated reference:

66 EN 60704-2-6:2012¹, *Household and similar electrical appliances - Test code for the determination of airborne acoustical noise – Part 2-6: Particular requirements for tumble dryers*

68 **Delete** the following references:

69 EN 60704-1, *Household and similar electrical appliances – Test code for the determination of airborne noise - Part 1: General requirements”*

71 EN 60704-3, *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise - Part 3: Procedure for determining and verifying declared noise emission values*

73 **2 Modifications to Clause 3, “Terms and definitions”**

74 **Add** the following table before 3.1.1:

75 “

76 **Table 3.1 — Reference table for terms and definition in alphabetical order**

| Terms and definition | subclause |
|-----------------------------|-----------|
| air vented tumble dryer | 3.1.2 |
| automatic tumble dryer | 3.1.4 |
| combined cycle time | 3.1.Z28 |
| combined energy consumption | 3.1.Z27 |
| combined programme time | 3.1.Z27 |
| combined rated capacity | 3.1.Z26 |
| condensation efficiency | 3.1.Z20 |
| condenser tumble dryer | 3.1.3 |
| conditioning | 3.1.8 |
| cycle | 3.1.15 |
| cycle time | 3.1.16 |
| delay start | 3.1.Z15 |
| eco programme | 3.1.Z18 |
| end of the programme | 3.1.13 |
| Energy Efficiency Index | 3.1.Z19 |
| final moisture content | 3.1.23 |
| frequency of cleaning | 3.1.Z12 |
| full load | 3.1.Z1 |

¹ As amended by EN 60704-2-6:2012/prAB:2024.

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| Terms and definition | subclause |
|----------------------------|-----------|
| initial moisture content | 3.1.22 |
| left on mode duration | 3.1.Z10 |
| moisture content | 3.1.21 |
| multi-drum mode | 3.1.Z23 |
| network | 3.1.Z14 |
| networked standby mode | 3.1.Z17 |
| nominal test load mass | 3.1.20 |
| non-automatic tumble dryer | 3.1.5 |
| normalization | 3.1.17 |
| off mode | 3.1.24 |
| operation | 3.1.11 |
| partial load | 3.1.Z2 |
| post programme phase LO | 3.1.Z9 |
| post programme phase LU | 3.1.Z8 |
| post programme phases | 3.1.Z7 |
| power management system | 3.1.Z11 |
| pre-treatment | 3.1.7 |
| programme | 3.1.12 |
| programme time | 3.1.14 |
| rated capacity | 3.1.18 |
| rated voltage | 3.1.26 |
| simultaneous cycle | 3.1.Z25 |
| simultaneous programme | 3.1.Z24 |
| standby mode | 3.1.Z13 |
| test load | 3.1.6 |
| test load mass | 3.1.19 |
| test run | 3.1.9 |
| test series | 3.1.10 |
| treatment | 3.1.Z3 |
| treatment full | 3.1.Z4 |
| treatment half | 3.1.Z5 |
| tumble dryer | 3.1.1 |
| unstable left on mode | 3.1.Z6 |
| wrinkle guard function | 3.1.Z16 |

77

“

78 **Replace** term entry 3.1.18 with the following:

79 “

80 **3.1.18**81 **rated capacity**

82 maximum mass in kilograms, declared by the manufacturer, importer or authorised representative at 0,5 kg
83 intervals of dry textiles of a particular type, which can be treated in one drying **cycle** of a **tumble dryer** on the
84 selected **programme**, when loaded in accordance with the manufacturer's instructions

85 “

86 **Replace term entry 3.1.24 with the following:**

87 “

88 **3.1.24**89 **off mode**90 condition in which the test **tumble dryer** is connected to the mains and is not providing any function91 Note Z1 to entry: The following is also considered as **off mode**:92 a) conditions providing only an indication of **off mode**;

93 b) conditions providing only functionalities intended to ensure electromagnetic compatibility

94 “

95 **Delete term entry 3.1.25.**96 **Replace term entry 3.1.Z2 with the following:**

97 “

98 **3.1.Z2**99 **partial load**100 half of the **rated capacity** of a **tumble dryer** for a given **programme**

101 Note Z1 to entry: See Annex ZA for additional requirements.

102 “

103 **Replace term entries 3.1.Z4 and 3.1.Z5 with the following:**

104 “

105 **3.1.Z4**106 **treatment full**107 **test run** using the **eco programme** with **full load**108 **3.1.Z5**109 **treatment half**110 **test run** using the **eco programme** with **partial load**

111 “

112 **Add the following term entries:**

113 “

114 **3.1.Z13**115 **standby mode**116 condition where the test **tumble dryer** is connected to the mains and provides only the following functions,
117 which can persist for an indefinite time:

118 a) reactivation function, or reactivation function and a mere indication of enabled reactivation function; and/or

119 b) reactivation function through a connection to a **network**; and/or

120 c) information or status display; and/or

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121 d) detection function for emergency measures.

122 **3.1.Z14**

123 **network**

124 communication infrastructure with topology of links, an architecture, including the physical components,
125 organizational principles, communication procedures and formats (protocols).

126 **3.1.Z15**

127 **delay start**

128 condition where the user has selected a specified delay to the beginning of the **cycle** of the selected
129 **programme**.

130 **3.1.Z16**

131 **wrinkle guard function**

132 **operation** of the test **tumble dryer** after completion of a **programme** to prevent excessive wrinkle building of
133 the laundry.

134 **3.1.Z17**

135 **networked standby mode**

136 mode in which the **tumble dryer** is able to activate another function by way of a remotely initiated trigger from
137 a **network** connection.

138 **3.1.Z18**

139 **eco programme**

140 means the **programme** declared by the manufacturer, importer or authorized representative as to be able to
141 dry cotton laundry with an **initial moisture content** of the load of 60 % down to a final moisture content of the
142 load of 0 %.

143 **3.1.Z19**

144 **Energy Efficiency Index**

145 the ratio of the weighted energy consumption to the standard drying **cycle** energy consumption of a specific
146 **tumble dryer** model

147 **3.1.Z20**

148 **condensation efficiency**

149 ratio between the mass of moisture condensed by a **condenser tumble dryer** and the mass of moisture
150 removed from the load at the end of a **cycle**

151 **3.1.Z21**

152 **multi-drum tumble dryer**

153 tumble dryer **equipped with more than one drum whether in separate units or in the same casing**

154 **3.1.Z22**

155 **multi-drum mode**

156 programme where some or all of the drums of a multi-drum tumble dryer are operated simultaneously

157 Note Z1 to entry: A **tumble dryer** with more than one drum for the **treatment** of the textiles, where drums cannot be operated
158 simultaneously is not regarded as having a **multi-drum mode**. In this case each drum shall be tested separately.

159 **3.1.Z23**

160 **simultaneous programme**

161 series of **operations** which are predefined within the **multi-drum tumble dryer** and which are declared by the
162 manufacturer as suitable for drying certain textile types in two or more drums at the same time

163 **3.1.Z24**

164 **simultaneous cycle**

165 complete drying process, started at the same time for two or more drums, as defined by the **simultaneous**
166 **programme** selected, consisting of a series of **operations** (tumbling, heating, cool down, etc.) and including
167 any **operations** that occur after the completion of the **simultaneous programme**

168 Note Z1 to entry: Examples of **operations** that can occur after the completion of the **programme** are monitoring and
169 anticreasing (where applicable).

- 170 **3.1.Z25**
 171 **combined rated capacity**
 172 sum of **rated capacities** of all drums suitable for running a **simultaneous programme**
- 173 **3.1.Z26**
 174 **combined programme time**
 175 time from the simultaneous initiation of the **programme** for two or more drums (excluding any user programmed
 176 delay) until the end of the **simultaneous programme**.
- 177 Note Z1 to entry: If the end of **programme** is not indicated, the **combined programme time** is equal to the **combined cycle**
 178 **time**.
- 179 **3.1.Z27**
 180 **combined cycle time**
 181 time from the simultaneous initiation of the **programme** for two or more drums (excluding any user programmed
 182 delay) until all activity ceases; activity is considered to have ceased when the power consumption reverts to a
 183 steady-state condition that persists indefinitely without user intervention; if there is no activity after the end of
 184 the **programme**, the **combined cycle time** is equal to the **combined programme time**
- 185 Note Z1 to entry: **Cycle time** includes any activity that can occur after the **programme** is completed. This could include any
 186 electronic activity or any additional mechanical activity that occurs for a limited period after any end of programme indicator.
 187 Any cyclic event that occurs indefinitely is considered to be steady-state.
- 188 **3.1.Z28**
 189 **combined energy consumption**
 190 sum of the electrical energy consumption for all drums over a **simultaneous programme**

191 “

192 *In 3.2 replace Table Z1 with the following:*

193 “

194

Table Z1 — Symbols relating to Annex ZA

| Symbol | Symbol in IEC 61121:2012 | Units | Definition | Clause (first appearance) |
|------------|--------------------------|-------|--|---------------------------|
| [] | - | | rounding up/down to full integer values (no decimal places) as described in EN ISO 80000-1 | ZA.2 |
| [] | - | | always rounding up to full integer values (no decimal places) | ZA.2 |
| [] | - | | always rounding down to full integer values (no decimal places) | ZA.2 |
| <i>c</i> | W | kg | Rated capacity to calculate the Standard Annual Energy Consumption of tumble dryer . | ZA.5.9 |
| <i>CI</i> | - | | Two sided confidence interval per treatment | ZA.2 |
| <i>EEI</i> | - | | Energy Efficiency Index of a tumble dryer | ZA.5.9 |