IEC 62715-6-1

Edition 2.0 2018-04

INTERNATIONAL STANDARD

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Flexible display devices –
Part 6-1: Mechanical test methods – Deformation tests

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Full document details: IEC 62715-6-1 2018

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INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

ICS 31.120

ISBN 978-2-8322-5614-5

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CONTENTS

FOREWORD 4
1 Scope 6
2 Normative references 6
3 Terms and definitions 6
4 Standard atmospheric conditions 6
5 Specimen preparation 7
5.1 General 7
5.2 Sample preparation 7
6 Mechanical stress test methods 7
6.1 General 7
6.2 Cyclic bending test 8
6.2.1 General 8
6.2.2 Purpose 8
6.2.3 Test apparatus 8
6.2.4 Test procedure 9
6.2.5 Testing conditions and reporting 9
6.3 Static bending test 11
6.3.1 General 11
6.3.2 Purpose 11
6.3.3 Test apparatus 11
6.3.4 Test procedure 11
6.3.5 Testing conditions and reporting 12
6.4 Combined bending test 12
6.4.1 General 12
6.4.2 Purpose 12
6.4.3 Test apparatus 12
6.4.4 Test procedure 12
6.4.5 Testing conditions and reporting 13
6.5 Rolling test 14
6.5.1 General 14
6.5.2 Purpose 14
6.5.3 Test apparatus 14
6.5.4 Test procedure 15
6.5.5 Testing conditions and reporting 16
6.6 Static rolling test 16
6.6.1 General 16
6.6.2 Purpose 16
6.6.3 Test apparatus 16
6.6.4 Test procedure 17
6.6.5 Testing conditions and reporting 17
6.7 Torsion test 18
6.7.1 General 18
6.7.2 Purpose 18
6.7.3 Test apparatus 18
6.7.4 Test procedure 18
6.7.5 Testing conditions and reporting 19

AVA Documents
Document Sharing Hub

Full document details: IEC 62715-6-1 2018

6.8 Tension test 20
6.8.1 General 20
6.8.2 Purpose 20
6.8.3 Test apparatus 20
6.8.4 Test procedure 20
6.8.5 Testing conditions and reporting 21
Bibliography 22

Figure 1 – Apparatus for diverse cyclic bending tests 10
Figure 2 – Apparatus for static bending test 11
Figure 3 – Apparatus for combined bending tests consisting of the cyclic bending test and static bending test 13
Figure 4 – Apparatus for rolling test 15
Figure 5 – Apparatus for diverse torsion tests 19
Figure 6 – Apparatus for tension test 21

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Full document details: IEC 62715-6-1 2018

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FLEXIBLE DISPLAY DEVICES –

Part 6-1: Mechanical test methods – Deformation tests

FOREWORD

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International Standard IEC 62715-6-1 has been prepared by IEC technical committee 110: Electronic display devices.

This second edition cancels and replaces the first edition published in 2014. This edition constitutes a technical revision.

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

a) changed the part title to differentiate it from other parts;
b) added new bending testing methods;
c) added detailed testing procedures.

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

FDIS	Report on voting
110/951/FDIS	110/974/RVD

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 62715 series, under the general title *Flexible display devices*, 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.

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

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FLEXIBLE DISPLAY DEVICES –

Part 6-1: Mechanical test methods – Deformation tests

1 Scope

The object of this part of IEC 62715 is to define the standard test methods to evaluate the mechanical stability of flexible display modules, specifically mechanical stability against deformation, such as bending, rolling, twisting, and stretching. Display modules include displays such as LCD, e-paper, and OLED. This document takes into account, wherever possible, the mechanical test methods outlined under mechanical stress.

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 62341-5:2009, *Organic light emitting diode (OLED) displays – Part 5: Environmental testing methods*

3 Terms and definitions

No terms and definitions are listed in this document.

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

4 Standard atmospheric conditions

The standard atmospheric conditions in IEC 62341-5:2009, 5.3, shall apply as follows, unless otherwise specifically agreed between customer and supplier.

– Temperature: 25 °C ± 3 °C
– Relative humidity: 25 % RH to 85 % RH
– Atmospheric pressure: 86 kPa to 106 kPa

When all the different kinds of tests are carried out, the temperature and humidity condition shall be reported because the temperature and humidity are critical for the bending and rolling stability regarding image quality on the panel.

NOTE Preferably, the specimen and apparatus are kept in a controlled environment for at least 24 h prior to and after assembly, before the start of the mechanical deformation test.

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