

# INTERNATIONAL STANDARD



**Flexible display devices –  
Part 6-3: Mechanical test methods – Impact and hardness tests**



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**Flexible display devices –  
Part 6-3: Mechanical test methods – Impact and hardness tests**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## FLEXIBLE DISPLAY DEVICES –

## Part 6-3: Mechanical test methods – Impact and hardness tests

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International Standard IEC 62715-6-3 has been prepared by IEC technical committee 110: Electronic displays.

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

FDIS	Report on voting
110/1225/FDIS	110/1247/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 parts in the IEC 62715 series, published 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

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## FLEXIBLE DISPLAY DEVICES –

### Part 6-3: Mechanical test methods – Impact and hardness tests

#### 1 Scope

The object of this part of IEC 62715 is to define the standard test methods to evaluate the mechanical robustness of flexible display modules, especially mechanical robustness regarding impact and hardness, which include displays such as liquid crystal displays (LCDs), e-paper, and organic light emitting diode (OLED) displays, against external forces applied to a panel.

#### 2 Normative references

The following documents are referred to in the text in a way that some or all of their content constitutes requirements for 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 displays – Part 5: Environmental testing methods*

ISO 19252, *Plastics: Determination of scratch properties*

ASTM D7207-13, *Standard Test Method for Evaluation of Scratch Resistance of Polymeric Coatings and Plastics Using an Instrumented Scratch Machine*

#### 3 Terms, definitions and abbreviated terms

##### 3.1 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>

##### 3.1.1

###### **pendulum side impact test**

evaluation of the mechanical robustness properties of the material against an external impact applied from the side using a pendulum

##### 3.1.2

###### **steel wool**

special alloy steel which is processed into a thin and long fibrous form to be used as an abrasive

Note 1 to entry: The cross section surface is polyhedral with edges.

Note 2 to entry: There are several kinds of steel wool depending on the diameter of the used fibre. The steel wool type is #0000. The average line diameter of #0000 is about 0,012 mm.