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Standards

Irish Standard  
I.S. EN IEC 63203-204-1:2021

# Wearable electronic devices and technologies - Part 204-1: Electronic textile - Test method for assessing washing durability of leisurewear and sportswear e-textile systems

**I.S. EN IEC 63203-204-1:2021**

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## National Foreword

I.S. EN IEC 63203-204-1:2021 is the adopted Irish version of the European Document EN IEC 63203-204-1:2021, Wearable electronic devices and technologies - Part 204-1: Electronic textile - Test method for assessing washing durability of leisurewear and sportswear e-textile systems

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
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**EN IEC 63203-204-1**

June 2021

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English Version

**Wearable electronic devices and technologies - Part 204-1:  
Electronic textile - Test method for assessing washing durability  
of leisurewear and sportswear e-textile systems  
(IEC 63203-204-1:2021)**

Technologies et dispositifs électroniques prêts-à-porter -  
Partie 204-1 : Textile électronique - Méthode d'essai pour  
l'évaluation de la durabilité au lavage des systèmes e-  
textiles des vêtements de sport et de loisirs  
(IEC 63203-204-1:2021)

Tragbare elektronische Geräte und Technologien -  
Teil 204-1: Elektronische Textilien - Prüfverfahren zur  
Beurteilung der Waschbeständigkeit von E-  
Textiliensystemen der Freizeit- und Sportbekleidung  
(IEC 63203-204-1:2021)

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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**

**EN IEC 63203-204-1:2021 (E)**

## **European foreword**

The text of document 124/139/FDIS, future edition 1 of IEC 63203-204-1, prepared by IEC/TC 124 "Wearable electronic devices and technologies" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63203-204-1:2021.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2022-03-15
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2024-06-15

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## Annex ZA

### (normative)

### Normative references to international publications with their corresponding European publications

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NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 139	-	Textiles - Standard atmospheres for conditioning and testing	EN ISO 139	-
ISO 6330	-	Textiles - Domestic washing and drying procedures for textile testing	EN ISO 6330	-
-	-	Textiles and textile products - Electrically conductive textiles - Determination of the linear electrical resistance of conductive tracks	EN 16812	2016

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# **INTERNATIONAL STANDARD**

## **NORME INTERNATIONALE**



**Wearable electronic devices and technologies –  
Part 204-1: Electronic textile – Test method for assessing washing durability of  
leisurewear and sportswear e-textile systems**

**Technologies et dispositifs électroniques prêts-à-porter –  
Partie 204-1: Textile électronique – Méthode d'essai pour l'évaluation de la  
durabilité au lavage des systèmes e-textiles des vêtements de sport et de loisirs**



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**IEC 63203-204-1**

Edition 1.0 2021-05

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



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**Wearable electronic devices and technologies –  
Part 204-1: Electronic textile – Test method for assessing washing durability of  
leisurewear and sportswear e-textile systems**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## WEARABLE ELECTRONIC DEVICES AND TECHNOLOGIES –

**Part 204-1: Electronic textile – Test method for assessing washing durability of leisurewear and sportswear e-textile systems**

## FOREWORD

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International Standard IEC 63203-204-1 has been prepared by IEC technical committee 124: Wearable electronic devices and technologies.

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

FDIS	Report on voting
124/139/FDIS	124/145/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 63203 series, published under the general title *Wearable electronic devices and technologies*, 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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## WEARABLE ELECTRONIC DEVICES AND TECHNOLOGIES –

### Part 204-1: Electronic textile – Test method for assessing washing durability of leisurewear and sportswear e-textile systems

#### 1 Scope

This document specifies a household washing durability test method for leisurewear and sportswear e-textile systems. This document includes testing procedures for leisurewear and sportswear products with electrically conductive components and sensors to collect the data of the user.

This document does not cover safety or heat-generation test methods. Products containing other components than those listed in this clause are not covered by this document.

#### 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.

ISO 139, *Textiles – Standard atmospheres for conditioning and testing*

ISO 6330, *Textiles – Domestic washing and drying procedures for textile testing*

EN 16812:2016, *Textiles and textile products – Electrically conductive textiles – Determination of the linear electrical resistance of conductive tracks*

#### 3 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

##### **e-textile system**

##### **ETS**

product made from textiles and integrated electronics that together perform one or more functions

##### 3.2

##### **conductive textile**

textile with electrical conductivity

##### 3.3

##### **leisurewear and sportswear**

clothing worn to enjoy leisure and sports (excluding accessories such as watches and glasses)

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