

---

---

**Plastics — Determination of Charpy  
impact properties —**

**Part 2:  
Instrumented impact test**

*Plastiques — Détermination des caractéristiques au choc Charpy —  
Partie 2: Essai de choc instrumenté*

**(<https://standards.iteh.ai>)  
Document Preview**

[ISO 179-2:2020](https://standards.iteh.ai/catalog/standards/iso/b316c2ec-7c1f-48e1-abd6-f15e6db53bbe/iso-179-2-2020)

<https://standards.iteh.ai/catalog/standards/iso/b316c2ec-7c1f-48e1-abd6-f15e6db53bbe/iso-179-2-2020>



**iTeh Standards**  
**(<https://standards.iteh.ai>)**  
**Document Preview**

[ISO 179-2:2020](https://standards.iteh.ai/catalog/standards/iso/b316c2ec-7c1f-48e1-abd6-f15e6db53bbe/iso-179-2-2020)

<https://standards.iteh.ai/catalog/standards/iso/b316c2ec-7c1f-48e1-abd6-f15e6db53bbe/iso-179-2-2020>



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>2</b>
<b>3 Terms and definitions</b> .....	<b>2</b>
<b>4 Principle</b> .....	<b>7</b>
<b>5 Apparatus</b> .....	<b>7</b>
<b>6 Test specimens</b> .....	<b>11</b>
<b>7 Procedure</b> .....	<b>11</b>
<b>8 Calculation and expression of results</b> .....	<b>12</b>
8.1 General.....	12
8.2 Calculation of deflection.....	12
8.3 Calculation of energy.....	13
8.4 Calculation of impact strength.....	14
8.4.1 Unnotched test specimens.....	14
8.4.2 Notched test specimens.....	14
8.5 Statistical parameters.....	15
8.6 Number of significant figures.....	15
<b>9 Precision</b> .....	<b>15</b>
<b>10 Test report</b> .....	<b>15</b>
<b>Annex A (informative) Inertial peak</b> .....	<b>17</b>
<b>Annex B (informative) Mass of frame</b> .....	<b>20</b>
<b>Annex C (informative) Precision data</b> .....	<b>21</b>
<b>Bibliography</b> .....	<b>23</b>

<https://standards.iteh.ai/catalog/standards/iso/b316c2ec-7c1f-48e1-abd6-f15e6db53bbe/iso-179-2-2020>

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 2, *Mechanical properties*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 249, *Plastics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 179-2:1997), which has been technically revised. It also incorporates the Technical Corrigendum ISO 179-2:1997/Cor 1:1998 and the Amendment ISO 179-2:1997/Amd 1:2011.

The main changes compared to the previous edition are as follows:

- references to ISO 13802:2015 have been updated;
- force calibration requirements have been clarified;
- a new subclause for the determination of test speed when using falling mass instruments has been added (see [5.1.6](#)).

A list of all parts of the ISO 179 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).