

Third edition  
2015-03-01

**AMENDMENT 1**  
2020-09

---

---

**Optics and photonics —  
Environmental test methods —**

**Part 3:  
Mechanical stress**

**AMENDMENT 1**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

*Optique et photonique — Méthodes d'essais d'environnement —  
Partie 3: Contraintes mécaniques*

**AMENDEMENT 1**  
**ISO 9022-3:2015/Amd 1:2020**

<https://standards.iteh.ai/catalog/standards/sist/b3ae929b-373b-497e-9f8c-29459fd13fa5/iso-9022-3-2015-amd-1-2020>



Reference number  
ISO 9022-3:2015/Amd.1:2020(E)

© ISO 2020

## iTeh STANDARD PREVIEW (standards.iteh.ai)

ISO 9022-3:2015/Amd 1:2020  
<https://standards.iteh.ai/catalog/standards/sist/b3ae929b-373b-497e-9f8c-29459fd13fa5/iso-9022-3-2015-amd-1-2020>



### **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  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

## 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 of 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 [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 172, *Optics and Photonics*, Subcommittee SC 1, *Fundamental standards*.

A list of all parts in the ISO 9022 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).

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[ISO 9022-3:2015/Amd 1:2020](https://standards.iteh.ai/catalog/standards/sist/b3ae929b-373b-497e-9f8c-29459fd13fa5/iso-9022-3-2015-amd-1-2020)

<https://standards.iteh.ai/catalog/standards/sist/b3ae929b-373b-497e-9f8c-29459fd13fa5/iso-9022-3-2015-amd-1-2020>

# Optics and photonics — Environmental test methods —

## Part 3: Mechanical stress

### AMENDMENT 1

#### 4.5

Replace 4.5 by the following:

#### 4.5 Conditioning method 34: Bounce

See [Table 6](#).

The test shall be carried out according to IEC 60068-2-55. All degrees of severity in [Table 6](#) refer to testing with either a bounce table, or an electrodynamic/servo-hydraulic testing facility.

When using a bounce table, use a double amplitude of 25,5 mm  $\pm$  0,5 mm and a frequency of 4,75 Hz  $\pm$  0,05 Hz.

When using an electrodynamic/servo-hydraulic testing facility, excite with a digitally controlled mixed mode vibration spectrum. This spectrum is a sine over random with 1,1 *g* acceleration at a sweeping frequency from 8 Hz to 12 Hz with 3 octaves per minute and 0,04 g<sup>2</sup>/Hz<sup>1</sup>) acceleration power spectral density from 5 Hz to 20 Hz.

**Table 6 — Degrees of severity for conditioning method 34: Bounce**

Degree of severity <sup>a</sup>		<b>01</b>	<b>02</b>	03
Exposure time	min	15	60	180
	Acceptable deviation	±10 %		
State of operation		0 or 1		
<sup>a</sup> The degree of severity printed in boldface shall be given preference. The period of exposure shall be allocated in equal portions to each of the surfaces to be exposed.				

1) The acceleration power spectral density was determined experimentally with different test samples.

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

ISO 9022-3:2015/Amd 1:2020  
<https://standards.iteh.ai/catalog/standards/sist/b3ae929b-373b-497e-9f8c-29459fd13fa5/iso-9022-3-2015-amd-1-2020>