

This is a preview of "ISO 16936-1:2005". [Click here to purchase the full version from the ANSI store.](#)

First edition
2005-07-01

Glass in building — Forced-entry security glazing —

Part 1:

Test and classification by repetitive ball drop

*Verre dans la construction — Vitrages de sécurité contre infractions —
Partie 1: Essai et classification par balle lancée répétée*



Reference number
ISO 16936-1:2005(E)

© ISO 2005

This is a preview of "ISO 16936-1:2005". [Click here to purchase the full version from the ANSI store.](#)

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

© ISO 2005

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

This is a preview of "ISO 16936-1:2005". [Click here to purchase the full version from the ANSI store.](#)

Contents

	Page
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Sampling	2
5 Apparatus	2
6 Required characteristics	3
7 Test method	3
8 Classification and designation	5
9 Test report	5
10 Marking	6
Annex A (informative) Testing by repetitive ball drop at extreme temperatures	7
Bibliography	8

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 16936-1 was prepared by Technical Committee ISO/TC 160, *Glass in building*, Subcommittee SC 2, *Use considerations*.

ISO 16936 consists of the following parts, under the general title *Glass in building — Forced-entry security glazing*:

- *Part 1: Test and classification by repetitive ball drop*
- *Part 2: Test and classification by repetitive impact of a hammer and axe at room temperature*
- *Part 3: Test and classification by manual attack*
- *Part 4: Test and classification by pendulum impact under thermally and fire stressed conditions*

This is a preview of "ISO 16936-1:2005". [Click here to purchase the full version from the ANSI store.](#)

Introduction

This part of ISO 16936 assesses security-glazing products that are more familiarly known as “anti-vandal”, “anti-bandit” and “detention” glazing products. Because there is no single test that will cover the wide range of resistances to attack, four separate test methods are provided to assess the forced entry resistant properties of security glazing. It is not intended that any particular test method be associated with the terms “anti-vandal” or “anti-bandit”, since these terms can be only loosely defined and there is considerable overlap in their definition.

It is important that security glazing products be installed in a frame which can give appropriate resistance to impact and which also provides a suitable support for the security-glazing product. It is important that cutouts and holes in security glazing products be avoided where possible, as these can affect the resistance of the product.

The test method specified in this part of ISO 16936 does not reproduce the conditions of real human attack, but is intended to give a classification of comparative resistance.

This is a preview of "ISO 16936-1:2005". [Click here to purchase the full version from the ANSI store.](#)