

First edition
2016-01-15

Road vehicles — Determination of resistance to forced entry of security glass constructions used in vehicle glazing — Test of glazing systems

Véhicules routiers — Détermination de la résistance à la force d'intrusion des constructions de vitres de sécurité utilisées dans les vitrages de véhicules — Essai des systèmes de vitrages



Reference number
ISO 23013:2016(E)

© ISO 2016

This is a preview of "ISO 23013:2016". [Click here to purchase the full version from the ANSI store.](#)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, 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
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

This is a preview of "ISO 23013:2016". [Click here to purchase the full version from the ANSI store.](#)

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	3
5 Apparatus	4
5.1 Description of the apparatus.....	4
5.1.1 General.....	4
5.1.2 Tool for pointed attack.....	6
5.1.3 Tool for blunt attack.....	7
5.1.4 Tool for cutting attack.....	7
5.1.5 Tool for displacement test.....	8
5.2 Checking the equipment.....	10
5.2.1 Determining the effective mass and checking the speed measuring apparatus.....	10
5.2.2 Pointed attack.....	11
5.2.3 Blunt attack.....	11
5.2.4 Cutting attack.....	11
5.2.5 Displacement test.....	11
6 Test pieces	12
6.1 Support frame for the system part.....	12
6.2 Associated sections of the car body.....	12
6.3 Security glazing.....	12
6.4 Number of panes of glazing.....	13
7 Test conditions	13
8 Test procedures	13
8.1 General.....	13
8.2 Attack test sequence with blunt tool.....	14
8.2.1 General.....	14
8.2.2 Test element pointed attack.....	14
8.2.3 Test element blunt attack.....	14
8.2.4 Test element displacement.....	14
8.2.5 Test position and requirements for different levels of attack resistance.....	14
8.3 Attack test sequence with cutting tool.....	15
8.3.1 General.....	15
8.3.2 Test element pointed attack.....	16
8.3.3 Test element cutting attack.....	16
8.3.4 Test element displacement.....	16
8.3.5 Test position and requirements for different levels of attack resistance.....	16
9 Classification	18
10 Test report	18
11 Test certificate	19
Annex A (informative) Comments	20
Annex B (informative) Source of steel pin for the pointed attack tool	21
Bibliography	22

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).

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).

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 meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 22, *Road vehicles*, Subcommittee SC 35, *Lighting and visibility*.

This is a preview of "ISO 23013:2016". [Click here to purchase the full version from the ANSI store.](#)

Introduction

The vast majority of potential attacks using hand-held implements can be narrowed down to two basic types of attack: attack with a sharp instrument and attack with a blunt instrument. Such attacks are reproduced by these procedures using standardized tests. The levels of energy/force used in the tests are designed to reflect strength of attack that is within the limits of human capability.

As the construction of the window frame plays a particularly important role in providing resistance to forced entry, any glazing requiring classification approval by this International Standard needs to be tested within its own original car body section, e.g. its own door assembly.

By defining performance levels of attack resistance, it is possible to classify the intruder resistance properties of a given glazing within a system part.