სსტ ენ 1143-1:2019/2019

საქართველოს სტანდარტი

უსაფრთხო შესანახი მოწყობილობები-მოთხოვნები, კლასიფიკაცია და გამოცდის მეთოდები ძარცვის საწინააღმდეგოდ- ნაწილი 1: სეიფები, ATM სეიფები, საცავის კარებები და საცავები

საქართველოს სტანდარტებისა და მეტროლოგიის
ეროვნული სააგენტო
თბილისი

სსტ ენ 1143-1:2019/2019

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1 შემუშავებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს სტანდარტების დეპარტამენტის მიერ

2 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს 2019 წლის 2 დეკემბრის № 95 განკარგულებით

3 მიღებულია გარეკანის თარგმნის მეთოდით სტანდარტიზაციის ევროპული კომიტეტის სტანდარტი ენ 1143-1:2019 "უსაფრთხო შესანახი მოწყობილობები- მოთხოვნები, კლასიფიკაცია და გამოცდის მეთოდები ძარცვის საწინააღმდეგოდ- ნაწილი 1: სეიფები, ATM სეიფები, საცავის კარებები და საცავები"

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1143-1

April 2019

ICS 13.310

Supersedes EN 1143-1:2012

English Version

Secure storage units - Requirements, classification and methods of test for resistance to burglary - Part 1: Safes, ATM safes, strongroom doors and strongrooms

Unités de stockage en lieux sûrs - Prescriptions, classification et méthodes d'essai pour la résistance à l'effraction - Partie 1 : Coffres forts, distributeurs automatiques de billets (DAB), portes fortes et chambres fortes

Wertbehältnisse - Anforderungen, Klassifizierung und Methoden zur Prüfung des Widerstandes gegen Einbruchdiebstahl - Teil 1: Wertschutzschränke, Wertschutzschränke für Geldautomaten, Wertschutzraumtüren und Wertschutzräume

This European Standard was approved by CEN on 1 March 2019.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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COMITÉ EUROPÉEN DE NORMALISATION
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Ref. No. EN 1143-1:2019 E

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European foreword

This document (EN 1143-1:2019) has been prepared by Technical Committee CEN/TC 263 “Secure storage of cash, valuables and data media”, the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2019, and conflicting national standards shall be withdrawn at the latest by October 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1143-1:2012.

Compared with EN 1143-1:2012, the following changes were made:

a) requirements for the conduct of the additional T2 test have been added (4.1, 4.6, 12, 13.4, 14 c), Table 1, Table 2 and Table 3). Products tested with these new tools which are listed in Annex B have a 'T2' designation behind the resistance grade.

b) In Annex A, a power supply, a plug and a cable connector have been added.

c) The construction requirements for ATM safes of the resistance grade L have been deleted (7.5.5 has been deleted, changes in Table 2 and 7.5.4 have been made).

d) For clarification 4.2.2 has been updated and an informative Annex C and text in the introduction has been added for different types of ATM systems.

e) Updates have been integrated for the optional solid explosive test, above all: The explosive mass for the EX-option in 9.4 was changed to “active explosive mass”, a definition for active explosive charge mass has been added (3.24), instead of specific energy the explosive heat of the PETN is defined (9.3); the detonation velocity of the PETN was raised from (7 000 ± 500) m/s to (7 500 ± 500) m/s (9.3); the tolerance of the active explosive charge mass has been changed from ± 1 g to ± 2 %, the requirement that test specimens shall have a certain internal capacity has been deleted from 9.2, the shape of the explosive charge shall now be spherical for ATM safes and safes (see 9.5.1), the clause for not permitting the entry of explosives through the cable-entry openings has been deleted (4.3). In addition, a note has been added in Table 4.

f) Updates have been made in the optional gas explosive test: the background for using the amount of gas for resistance grade II, III and IV has been explained in greater detail (5.8 f), 10.4) and for resistance grade V, VI, VII and VIII a new formula has been integrated.

g) An additional test condition for cutting steel sheets has been added (Clause 2 and 7.6.7);

h) Editorial and minor changes have been integrated in the Clauses 3.10, 3.16, 3.17, 4.2.1, 6.1, 7.1, 7.3.1, 7.5.4.1, 7.5.4.2, 7.6.5, 7.6.6, 7.8, 9.5.2, 9.6, 10.4, 10.6, 11.3.1 and 11.3.2 as well as Figure 2.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Tests are made, the results of which are used to classify the resistance to burglary. The resistance classification can also be used for designing security systems with the provision that, depending on the criminal, the conditions at the place of the crime and the availability of tools, considerably longer times are likely to occur in real burglary attacks than in a test.

Manual tests are included, whose results and repeatability are dependent on the skill of the testing team. Machine-related tests are under development and may be included when this European Standard is revised.

For ATM systems the tests and requirements in this European standard are based on the following assumptions (conditions) of use:

— **ATM system**: assembly of sub-units which provides an ATM function and affords security to cash and/or valuables (e.g. checks) stored within the ATM safe.

— For using of an ATM safe the ATM manufacturer is responsible for the secure storage of the cash and/or valuables (e.g. checks).

Examples of different designs of ATM systems are given in Annex C.