KEYMARK Scheme

Physical Security

(Edition: 2022-03)

Foreword

The European security market is characterised by an increasing number of non-tariff trade barriers throughout the European Union. One of the main problems is the lack of harmonisation of certification procedures and recognition of certificates in Europe.

This can mean that security products manufactured to European standards still need additional local certifications in different European countries. This can lead to negative impacts for manufacturers but also for consumers, who are not sure which certification they can trust.

This KEYMARK scheme creates consumer confidence, in that an independent, neutral and competent body has carefully examined and assessed the product on the basis of the test criteria and of certification procedures, which have been harmonised and accepted by several certification bodies in Europe. Third-party monitoring, of the on-going production process, provides reassurance that the quality of the product is being maintained.

The burglar resistant products can receive the KEYMARK on meeting the requirements listed under section 3 according to the procedure described in this certification scheme.

All certificate holders can be viewed on the KEYMARK homepage www.keymark.eu.
The direct link to the security KEYMARK is: security.keymark.eu

Start of validity

This certification scheme comes into effect on 2022-03-03.

CONTENTS

1 Scope

This certification scheme is applicable to standalone products in the field of physical security products. It focuses on burglar resistant products intended to provide protection to people, property and infrastructure in industrial, public and domestic buildings.

Along with the test standards and documents mentioned below, this certification scheme contains all of the requirements for awarding the “KEYMARK”.

The certification scheme presented here states the requirements for the product itself as well as for the testing, monitoring and certification of same.

2 Testing and Certification Specifications

The following referenced documents form the basis for testing and certification. For dated references, only the edition citied applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

The following product standards define the product requirements:

EN 1627	Pedestrian doorsets, windows, curtain walling, grilles and shutters - Burglar resistance - Requirements and classification

In addition, the following product and testing standards define testing conditions:

EN 1628	Pedestrian doorsets, windows, curtain walling, grilles and shutters – Burglar resistance – Test method for the determination of resistance under static loading
EN 1629	Pedestrian doorsets, windows, curtain walling, grilles and shutters – Burglar resistance – Test method for the determination of resistance under dynamic loading
EN 1630	Pedestrian doorsets, windows, curtain walling, grilles and shutters – Burglar resistance – Test method for the determination of resistance to manual burglary attempts
EN 1906	Building hardware – Lever handles and knob furniture – Requirements and test methods
EN 1303	Building hardware – Cylinders for locks – Requirements and test methods
EN 12209	Building hardware – Mechanically operated locks and locking plates – Requirements and test methods
EN 15684	Building hardware – Mechatronic cylinders – Requirements and test methods

- This certification scheme
- The CEN-CENELEC Internal Regulations - Part 4
- Guidance from CEN TC 33 WG 7 TG 4 (when published)

3 Product Requirements

3.1 General

Burglar resistant products for this scheme are classified according to resistance classes. For products intended to offer protection from a casual or opportunist burglar the resistance classes RC 1 N, RC 2 N,

RC 2 and RC 3 are envisaged; for products intended to offer protection from experienced and ‘professional’ burglars resistance classes RC 4, RC 5 and RC 6 are envisaged.

The following general requirements in accordance with EN 1627 apply:

- Burglary resistance of glazing according to EN 356 or EN 1630;
- Burglary resistance of hardware according to EN 1303, EN 1906; EN 12209, EN 1627 or EN 1630;
- Mechanical resistance of the product to static loads according to EN 1628;
- Mechanical resistance of the product to dynamic loads according to EN 1629;
- Manual burglary attempts with a wide choice of burglary tools according to EN 1630.

3.2 Technical documentation

The technical documentation of the product shall at least include:

a. Document showing dimensions as well as manufacturing tolerances, number of leaves, size of door gap and attack side;
b. Horizonal and vertical cross sections;
c. Drawing of especially protected areas;
d. Marking, position and dimensions of any holes;
e. Specification of filling material including glazing;
f. Welds including the method of their execution;
g. Characteristics of blocking components;
h. Specification of dimensions for links and connections to external components;
i. Instruction for use;
j. Installation instruction (recommendations are listed in Annex A of EN 1627);
k. List of hardware to be installed.

3.3 Labelling

The KEYMARK shall in principle be affixed to the product itself by being engraved, pressed, moulded, printed or by any other method. If affixing to the product itself is not possible or practical, it shall be affixed to the product’s package, the labelling, the instructions for use, or accompanying commercial documentation.

The marking includes the licence number of the certificate and an identification code of the empowered certification body which has granted the “KEYMARK”. The identification code must remain clearly legible.

In addition, the marking shall include the resistance class according to EN 1627.

4 Requirements for Bodies engaged in certification, testing and inspection

4.1 General

All participating bodies are listed on the Physical Security KEYMARK website security.keymark.eu.

4.2 Certification Bodies

Certification bodies participating in the scheme shall be empowered by CEN (www.keymark.eu).

4.3 Testing Laboratories

Testing laboratories participating in the scheme shall be recognized by empowered certification bodies.

Requirements on recognition and participation in scheme group are stipulated in Annex C.

4.4 Inspection Bodies/Inspectors

Inspection bodies/inspectors participating in the scheme shall be recognized by empowered certification bodies.

Requirements on recognition and participation in scheme group are stipulated in Annex C.

5 Testing

5.1 General Information

For conducting the tests required as the basis for the assessment and certification of the products, the certification body avails itself of the testing laboratories to which it has awarded recognition.

5.2 Types of Test

5.2.1 Initial Type Test

Initial type tests are (physical test or design test) performed by recognized testing laboratories, which serve to determine whether the product meets the requirements laid down in Chapter 3 of this certification scheme.

5.2.2 Surveillance Test

Surveillance is conducted repeatedly at determined intervals at least once a year. It serves to ascertain whether the certified product corresponds to the initially type-tested product during the production phase.

For products certified according to EN 1627 no periodic surveillance tests are required apart from the initial test for certification. The surveillance is based on a third party factory surveillance (see Chapter 7.2).

Compliance check of a selection of certified products in accordance with the drawings shall be done by the auditor at the manufacturing plant.

5.2.3 Retest

A retest shall take place if additions, extensions or modifications (see section 6.9) are made to the certified product, which may influence the product's conformity with the pertinent, fundamental requirements. This applies also if the standard changes.

A retest may be a partial or full test depending on the affected performance. Retests are performed by recognized testing laboratories.

5.2.4 Drawing assessment

An assessment, conducted with the aid of drawings, is intended to determine whether deviations from or additions to the basic design have any influence on the compliance with the requirements in EN 1627.

The drawing assessment shall be conducted exclusively in the event that

- evidence is given that a complete initial type test (see 5.2.1) has been conducted or a similar product of the same type series exists and that said product complies with the Standard.

- the installation and arrangement of the functional parts of the product for which an examination of drawing has been requested do not deviate fundamentally from the tested design.

Once the product has been assessed successfully on the basis of a drawing check, it is deemed in conformity with the standard.

Drawing checks are performed by testing laboratories and/or certification bodies.

5.2.5 Exceptional Test

A exceptional test is conducted if

- defects are detected,
- the production has been suspended for a period of more than 6 months,
- required by the certification body – reasons to be specified,
- requested in writing by a third party if a particular interest in the maintenance of proper conduct of market procedures in relation to competition or quality is involved.

The type and scope of the special test shall be laid down in accordance with the specific, respective purpose on a case by case basis by the certification body in conjunction with the testing laboratory.

5.3 Selection of test specimens

Test specimens shall be selected taking EN 1627 Annex D as guidance by an empowered certification body or recognized testing laboratory.

5.4 Test Procedure

In order to harmonize the testing procedures of corresponding standards all testing laboratories shall meet regularly in a working group.
The test procedure shall be based on the relevant standards and the guidance from CEN TC 33 WG 7 TG 4 (when published).

6 Certification

Certification in the sense of this certification scheme relates to the assessment of conformity of a product by the certification body on the basis of test reports submitted by testing laboratories recognized by the certification body. To this end, the products to be certified are assessed and subsequently monitored in respect of conformity with the requirements laid down in Chapter 3.

The right to use the “KEYMARK” is granted with the issuing of the respective certificate.

6.1 Application

Both manufacturers and distributors may apply for certification. Distributors are entities who, with the written consent of the certificate holder, bring products onto the market under their own responsibility.

The applicant must submit the following documents to the certification body:

- Application for certification in the original complete with legally binding signature
- a validtest report according to section 5.2.1
- an up-to-date inspection report according to section 7.2.5
- Technical specification as described in section 3.2

The applicant shall receive, following receipt of the application, a confirmation of order with a Quotation contract, process number and notes regarding the further course of the procedure and, as applicable, queries concerning any missing documents.

6.2 Definition of Types, Subtypes and models

6.2.1 Types

A type is defined as being in the same product category and, in addition, the same principles of movement. That implies the following types:

Door (group 1)
Door(group2)
Window (group 1)
Window(group2)
Curtainwalling
Grille
Shutter

Group 1: Door or window that has a solid and rigid leaf or opening element and the principal movement to open is turning of the element.
Group 2: Door or window that has a solid and rigid leaf or opening element and the principal movement to open is sliding.

6.2.2 Subtypes

Physical security products that are distinguishable on the basis of characteristics relevant for certification shall be defined as **subtype**. These characteristics are, for example, those that

substantially influence the security class, function or handling of a product, which can thus be distributed under its own trade name. For each subtype an independent certificate shall be issued.

Products that are identical regarding below characteristics are part of the same subtype:
1. Fulfilling Annex D of EN 1627 (2011-09)
2. Direction and method of opening (e.g. inward/outward/vertical sliding/horizontal sliding)
3. Number of leaves
4. Resistance Class

6.2.3 Models

Models are those variations of a product that are only distinguishable in terms of size, configuration, glazing specification, hardware options or other characteristics within the same sub-type. A certificate may thus contain several models.

6.3 Conformity Assessment

On the basis of the documents submitted, the certification body conducts the conformity assessment. An assessment is made with the aid of the documents as to whether the product meets the requirements of the certification scheme and of the standard.

The applicant shall receive written notification from the certification body in the event of any possible deviations.

6.4 The Certificate and the Right to Use the Mark

After successful testing and conformity assessment of the submitted documents, the certfication body issues a certificate to the applicant and awards the right to use the “KEYMARK” in conjunction with a corresponding registration number.

Format of Registration No. **xxx-000**

Where ‘xxx’ is the identification code of the involved certification body and “000” is the specific certificate number.

Products, for which the right to use the “KEYMARK” has been awarded, must be marked with the KEYMARK and the corresponding registration number.

The mark and the registration number shall only be used for the product for which the certificate has been issued.

For each sub-types a unique registration number shall be issued (see section **Fehler! Verweisquelle konnte nicht gefunden werden.**.2).

6.5 Publications

All certificate holders can be viewed on the daily up-dated homepage www.keymark.eu under Physical Security Certificate Holders. Manufacturers, users and consumers use this research possibility for obtaining information on certified products.

In addition to the contact details of the certificate holders (telephone, telefax, e-mail, homepage) the technical data of the certified product is shown.

6.6 Validity of the Certificate

The certificate is valid for 5 years. The period of validity is shown on the certificate. On expiry of the certificate, the right to use the KEYMARK also expires.

6.7 Renewal of the Certificate

If the certification shall continue to apply beyond the date shown on the certificate, an application for renewal must be submitted in good time to the certification body. On the basis of the documents submitted, the certification body conducts the conformity assessment.

Proof of conformity with the requirements of the test and certification specifications according to section 2 shall be provided within the scope of a report in accordance with section 5.

6.8 Expiry of the Certificate

In the event that the new standard conformity assessment has not been completed before expiry of the validity period, the right to use the “KEYMARK” and the registration number expires without the necessity for explicit notification from the certification body.

Furthermore, the certificate can also be suspended or withdrawn if:

– the surveillance according to section 7.2.2 is not performed punctually or completely,

– the “KEYMARK” is misused by the certificate holder,

– the requirements laid down in the certification scheme or its accompanying documents are not fulfilled,

– the certification fees are not paid on the due date,

– the prerequisites for the issuing of the certificate are no longer fulfilled.

6.9 Extensions or Modifications

The certificate holder is obliged to notify the cerification body of all alterations to the product without delay. The testing laboratory in conjunction with the certification body shall decide on the scope of an assessment and whether it is a matter of a substantial modification. The respective test report shall be forwarded to the certification body by the testing laboratory.
The certificate shall be reissued, if the testing laboratory determines a substantial modification. A new application for initial certification shall be submitted for the modified product before certification of the modified product can take place.

The certificate holder remains obliged to notify of any changes in the formal details (e.g. certificate holder or his address).

The certificate holder may apply to the certification body for an extension of the existing certificate for further models of the same sub-types. It is for the certification body to decide whether these extensions require a retest or a drawing check (see 5.2). The models shall be entered in the certificate upon positive assessment for the already certified product and, provided that the conditions are fulfilled, shall be regarded as an integral part of same.

6.10 Product Defects

In the event that a certified product is detected to be defective, the certificate holder shall be requested in writing by the certification body to rectify the defects.

In conjunction with the testing laboratory, the certification body shall decide whether it is a major or a minor defect.

In the case of defects having a direct or indirect effect on the physical security or the functionality of the product (major defects), the manufacturer must ensure that, until the defects have been rectified, the products are no longer marked with the “KEYMARK”.

The defects must also be rectified without delay in installed products or products in storage. The manufacturer must submit proof to thecertification body within 3 months, in the form of a test report of a special test in accordance with section 5.2.5, that the defects have been rectified and that the product in question again fulfils the stipulated requirements.

In the case of defects that have no influence on the physical security or the functionality of the product (minor defects), the manufacturer must submit suitable proof to the certification body within 3 months that the defects in the product in question have been rectified.

Should the manufacturer fail to observe these deadlines, he and the distributor of product will no longer be permitted to use the “KEYMARK”.

The certification body shall initially suspend the certificate and at the same time issue a final deadline for the rectification of the defects, should grounds for complaint continue to exist. If the certificate holder fails to meet this demand, or fail to meet it within the period of grace, or if it is again not possible to prove that the defects have been rectified, the certificate shall be annulled.

7 Surveillance

7.1 Surveillance by the Manufacturer

The manufacturer must ensure, by suitable quality management measures, that the product characteristics confirmed by the certification are maintained. This can be accomplished by means of an in-house factory production control (FPC) focussed on the product itself or on the production and, in addition, it can be ensured within the framework of a quality management system (QMS) in accordance with ISO 9001.

7.1.1 Factory Production Control (FPC)

Factory production control comprises the continual monitoring of the production process by the manufacturer which guarantees the conformity of the products manufactured with the specified requirements.

7.1.2 Quality Management System

The manufacturer shall have a quality management system in conformity with the standard ISO 9001.

7.2 Third Party Surveillance

7.2.1 General Information

The constant surveillance of the certified product during the entire duration of the certification period is an integral component of the certification itself. On the basis of the documents submitted, the certification body conducts an conformity assessment. The surveillance shall be performed at regular intervals at least annually.

The certification body assesses the conformity of the product with the requirements laid down in the certification scheme.

7.2.2 Factory Surveillance

Within the framework of factory surveillance, the certification body or one of its authorised representatives, inspects the FPC and QMS at the manufacturing sites. It can be carried out with or without advance notice. The auditor shall prove his identity through an adequate identification paper. The manufacturing plants of the certificate holders shall allow the auditor an inspection of the plant and the products at any time during working hours. In addition they are obliged to supply the products to be tested out of the production and stock according to the auditor's wishes, among other things for test comparisons in compliance with the EN 1627, and to give him adequate assistance.

The factory surveillance determines whether the series products comply with the approved technical documentation of the keymark certificate. It also serves to determine whether the technical manufacturing pre-requisites are met for the continual conformity of the products with the requirements laid down in Chapter 3.

Should the results of the factory inspection prove insufficient, the applicant shall be informed accordingly without delay. In this case, the scope of additional measures needed to fulfil all requirements shall be determined between the certification body and the applicant. Should the applicant be unable to implement the necessary measures, the procedure shall be terminated and the certificate withdrawn. The applicant shall keep a list of any deviations detected in the factory inspection and as a result of customer complaints as well as the measures taken in order to rectify the deviations. It shall be presented to the auditor within the context of the factory surveillance upon request.

The factory surveillance shall be invoiced according to the scale of fees of the company for whom the auditor is working for.

7.2.3 Surveillance report

The surveillance report shall be recorded with Annex C. If more than one product is checked, clauses 10 to 12 shall be used for each product. The report shall be written by the auditor within four weeks.

The report shall contain at least the following:

- Auditor and body performing the audit
- Address of the manufacturing plant
- Date of the audit
- Persons attending the audit
- List of deviations
- Name of audited product(s) and its/their certificate number
- Dimensions of the product
- Hardware installed in the product (door hinges, locks, locking cylinder, drill protection, striking plates etc.)
- Proof of compliance of the structure and frame of the door, window etc. with the technical documentation
- Are the openings for locks, fittings, hinges as accurate as required (e.g., clearance at the sides)?
- Are the requirements concerning glazing satisfied?
- Are the requirements concerning KEYMARK labelling fulfilled (see 3.3)

8 List of Annexes

Annex A Third party surveillance report template

Annex B Fees

Annex C Requirements for participating bodies