SKG-KE 470
2012-09-06

SKG - ASSESSMENT GUIDELINES 470 (SUMMARY)

FOR ISSUING OF SKG® PRODUCTCERTIFICATES FOR ANTI THEFT PRODUCTS

Established by CvD Safe and Burglary resistant products dd. 04-06-2004

These assessment guidelines are a translation of the original Dutch text. Should there be disputes with regard to interpretation, the Dutch text shall be binding.

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GENERAL INFORMATION

These SKG-KE 470: anti-theft products (demands) have been established by SKG-decision dated 24 January 2011
The CvD V&I was instrumental in establishing these standards.
Represented in the Cvd V&I are the branch organisations VHS (manufacturers of Building Hardware) and ABHS (General organisation for Building Hardware), the Centre for Criminality Prevention and Security (CCV), the SKH (Foundation for Approval of Wood construction), the National Police Institute (NPI), Aegon Insurance Co., and the NSSG (Netherlands Key- and Lock specialists Guild) and NL-ingenieurs.

SKG is approved, in accordance with NEN-EN 45011 and NEN-EN-ISO/IEC 17021, by the Dutch Accreditation Council (RvA) for the following certification systems:
Attestation, Product Certification, Process Certificate and Quality System Certification in the fields of:
- Metal and PVC facade elements
- Door and window furniture
- Security glazing
- Cladding
- Glue for attaching siding,

The laboratory of SKG is accredited for various activities according to NEN-EN-ISO/IEC 17025.

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1. INTRODUCTION

1.1 Subject

The requirements included in these quality requirements will be used by SKG in the handling of applications for or maintaining a certificate for anti-theft products with burglary resistance and/or theft-prevention (hereafter referred to as **burglary resistance**) properties.
The quality certificate to be issued shall be known as the "SKG Quality certificate".
A SKG quality certificate may be issued only if the applicant has entered into a certification agreement with the certification institution.
An SKG Quality certificate may be issued only if the applicant (apart from possibly being responsible for the design) is also responsible for the (regular) production of anti-theft products, or responsible for the delivery of the certified product. In addition to the requirements set down in these SKG-KE, the certification institutions will set additional requirements in the sense of general procedural requirements for certification, as established in the regulations of the institution concerned.

1.2 Area of application

Products in accordance with the guidelines in these SKG-KE, satisfies the requirements for burglary resistance and may contribute to burglary resistance or theft deterrence if used correctly.

1.3 Date of commencement and period of validity.

These SKG-KE will take effect immediately on the date of publication.

Quality certificates in accordance with these SKG-KE shall be valid for a period of 5 years as long as periodical verification by the certification institution shows that specifications have not been changed in such a way as to necessitate an application for a new quality certificate and as long as the certificate holder has satisfied all his or her obligations arising from the certification agreement.
Following the aforementioned period of 5 years, the applicant must resubmit the application on time or no less than 3 months before the expiry date stated on the quality certificate.

These SKG-KE may be cited as: **SKG-KE 470: for Anti-theft Products.**

2. PROCEDURE FOR OBTAINING AN SKG QUALITY CERTIFICATE

2.1 Certification investigation (for new certificate holders only)

By submitting a written application, the applicant indicates that he/she wishes to enter into a certification agreement with the certification institution and therefore wishes to qualify for a quality certificate for one or more of his/her products. The applicant for the quality certificate indicates to which goods the anti-theft product will provide protection and what statements he wishes to have included in the quality certificate, in order to demonstrate by means of the certification that his anti-theft products continue to be in accordance with the requirements to be set for them. As an indication that the products satisfy the burglary preventive requirements to be set for them, the certification agreement shall entitle and oblige him/her to affix the relevant identifying marks as stipulated in the certificate. He/she will provide the necessary information for drawing up the "technical specification".

2.1.1. Primary product approval as part of the Certification Investigation

The certification institution will investigate whether the classification included in the quality certificate corresponds to the relevant requirements according to section 3 of these SKG-KE.
This will take place on the basis of laboratory tests including, if necessary, a number of "manual tests". All of this as stipulated in Section 6.1
The tests will establish whether the requirements set have been satisfied. Moreover, by means of testing where relevant, the value at which the product fails will be established. This "failure value" will be used as part of the verification inspection to establish that the certified product has remained equal in quality.

NB: For the same reason, it may be decided to establish other relevant product characteristics. One could think of the hardness of components of the product, for example.

2.1.2 Assessing the applicant's quality system

The certification institution will establish whether the applicant's quality system is in accordance with the stipulations of section 5 or whether the candidate certificate holder is prepared and able to set up and implement such a system within a reasonable time after entering into the certification agreement. All of this is at the discretion of the certification institution.
The quality certificates can be issued (see 2.1.4) only after it has been demonstrated that the applicant's quality system satisfies the stipulations of section 5.

2.1.3 Entering into a certification agreement

When primary product approval (2.1.1) and assessment of the applicant's quality system (2.1.2) have been successfully completed, the applicant will be offered a certification agreement in accordance with the general conditions for Product Certification of the certification institution.
In this, the applicant shall subject him/herself to the conditions of Product Certification and therefore to the inspection regime included in these and the sanction provision.
Moreover, the certificate holder shall undertake to provide his/her products with the stars identifying mark and an identification designation in the prescribed manner (indelible).

rmk: The identifying mark can consist in a protected brand or protected logo which, in the judgement of the certification institution, refers unambiguously to the certificate holder.

2.1.4 Issuing of the SKG productcertificate

The quality certificate will conform to the relevant model in appendix 1 and will be issued in accordance with the general conditions for product certification of the certification institution and when the certification agreement has been entered into. The quality certificate will be issued for the products for which primary product approval has been successfully concluded.

2.1.5 External quality care

After entering into a certification agreement, the certification institution will carry out verification as described in section 6.

2.2 Handling of applications for quality certificates under an existing certification agreement

2.2.1 Application

The certificate holder will let it be known that he/she wishes to be considered for a new quality certificate for one of his/her products and indicates to which goods the anti-theft product will provide protection.

2.2.2. Primary product approval as part of the application for new quality certificates

The certification institution will investigate whether the classification to be included in the quality certificate corresponds to the relevant requirements according to section 3 of these SKG-KE.
This will take place on the basis of laboratory tests as well as by the certification institution establishing that the product can withstand a manual test in a relevant practical situation. All of this as stipulated in Section 6.1

2.2.3 Issuing of the SKG productcertificate

The quality certificate will conform to the relevant model in appendix 2 and will be issued in accordance with the Conditions for Product Certification of the certification institute.

3. REQUIREMENTS TO BE SET FOR ANTI-THEFT PRODUCTS

3.1 Product requirements.

Anti-theft products must satisfy the general product requirements described hereafter and the stated specific requirements, respectively, pertaining to the classes:
"1-star", "2-star " and "3-star".

3.2 Design requirement

The product must be provided with an indelible mark or logo of the certificate holder and the identifying mark of the certification institution. (See chapter 4).

3.3 Performance requirements

3.3.1 Performance requirement: Durability

The manufacturer must declare that the certified anti-theft products still function well after 5000 operations. This will also take account of the maintenance instructions. These maintenance instructions must conform to what is reasonably usual in practice. Testing method: Establishing the presence of the manufacturer's declaration.

3.3.2 Performance requirement: Corrosion resistance

Anti-theft products must conform to the following classes according to NEN-EN 1670:1998

Products that are exclusively used indoors:	Grade 1
Products that will also be used outdoors:	Grade 3

For the determination methods and acceptance conditions the criteria are described in Section 5 of EN 1670.
If selected the salt-spray testing:
After the test, the operating mechanism is functional (operating force ≤ 25 N / torque ≤ 2.5 Nm). For this, it is allowed for a period of 2 minutes with manual force, and using only the original means, to make the product for commonly use. Assessment must take place within 10 minutes after the end of the salt-spray test.

3.3.3 Performance requirement: Resistance to cutting

If the product can be cut through, it should be resistant to this.
The product should be able to withstand a cutting force according to the table below

Class	Cutting force
1-star	25 kN
2-star	55 kN
3-star	70 kN

Testing according to par. 5.4.7 of EN 12320.
If, due to its form, the fitted product can only be accessed to a limited extent by pliers or if only a reduced cutting force can be applied. This is determined by an accessibility investigation in accordance with par 5.4.7 of EN 12320.
The reduced values can be found in table 4 of EN 12320, with a maximum of 70 kN.
Links of chains are cut on only one side. If the other side remains intact, the measured value is increased by 15%.

3.3.4 Performance requirement: resistance to manual testing

Anti-theft products must be capable of withstanding a manual assault with the tools shown in appendix 3.
After studying (an exploded view of) the product and possibly after conducting a number of orientational preliminary tests to be determined by the laboratory, a main test will be carried out. For this, a choice will be made of the tools available.
Anti-theft products must in this respect be able to offer resistance in the classes "1-star" , "2-star" and "3-star" for respectively 3, 3 (extra tools) and 5 minutes, to assault with the set of tools relevant to the class as stated in appendix 3.
The product is applied to (a dummy of) the article it is intended to secure. If the anti-theft product under testing consists of a combination of products, testing is carried out on the combination.
If the anti-theft product under testing is intended and suitable for providing protection for a number of articles, the certification institute determines in which application situation(s) the testing will take place.
The criterion is that the anti-theft product cannot be removed without damaging the secured article such that in fairness, it would have no residual value or not longer function.

Rmk: There is “in fairness no residual value” if it can be assumed that the value of the article is diminished by more than 75%.

4. CLASSIFICATION AND DESIGNATION

Anti-theft products*) that satisfy the "1-star" class according to section 3 will be indelibly marked with the mark or logo of the certificate holder and with the burglar resistance identifying mark of SKG featuring 1 star:

Anti-theft products*) that satisfy the "2-star" class according to chapter 3 will be indelibly marked with the mark or logo of the certificate holder and with the burglar resistance identifying mark of SKG featuring 2 stars:

Anti-theft products*) that satisfy the "3-star" class according to chapter 3 will be indelibly marked with the mark or logo of the certificate holder and with the burglar resistance identifying mark of SKG featuring 3 stars:

**) If it concerns burglar resistance cabinets, applies an indication insured value for SKG 1 -, 2 -, and 3-star versions of respectively € 2500, - / € 5000, - / € 9000, -*

Quality certificate:
The quality certificate contains a technical description of the product and states the class according to these SKG-KE and the star rating.

5. REQUIREMENTS FOR THE QUALITY SYSTEM OF SKG CERTIFICATE HOLDERS

5.1 Product and production control/ requirements to be set for the quality system

The SKG quality certificate holder must have a fully functional quality system that is demonstrably in accordance with what has been established in a production manual for this purpose.

Recommendation
The certificate holder's quality system should preferably conform to the requirements in accordance with ISO 9001 taking into account that the requirements for products stated in these SKG-KE, are up to standard, in order to guarantee that the product supplied by the certificate holder constantly satisfies the requirements.

Requirements to be set for the production manual:
In order to avoid differences of opinion and interpretation, the production manual should fully, clearly and unambiguously contain all the relevant data for the proper production or supply of the anti-theft products. This must include the following (where relevant):

a. the presence in the organisation structure of an officer charged with the management of the quality system.
b. the presence of up-to-date documentation on the certified product and also (if relevant) on the semi-manufactured products incorporated in it, of which it must be possible to show that their suitability for processing into anti-theft products is in accordance with the stipulations in these SKG-KE.
c. the presence and functionalism of a system of internal quality control set down in writing. This includes work instructions, etc., for the registration of data such as:
    * intake check of purchased raw materials, semi-manufactured products and end products;
    * production process control (also in the case of sub-outsourcing under contract);
    * end product control
d. measuring and research facilities, including their calibration (see 5.3);
e. settlement of faulty products;
f. the effectiveness of corrective measures in the case of identified imperfections and faults.
g. a complaints procedure including registration and settlement (see 5.4);
h. a procedure for the identification of products (article numbers, identifying marks, logos, etc.).

5.2 Measuring and testing equipment

In order to carry out the required registrations, the certificate holder must have the (calibrated) equipment necessary for adequate quality control, as well as measuring equipment with the degree of accuracy needed for the desired result.

5.3 Complaints registration

The holder of a quality certificate or a certificate must keep a complaints book in which he/she registers all complaints referring to products to which the quality certificate applies.
For each complaint, the complaints book must indicate in what way the complaint was analysed in what way the complaint was settled.

6. VERIFICATION BY THE CERTIFICATION INSTITUTION

6.1 Verification for obtaining the SKG productcertificate (Primary approval or Type approval)

Primary product approval consists of tests to establish that products satisfy the requirements of section 3. For carrying out the tests, products submitted for certification must be taken randomly from continuous production. If the certification institution deems it advisable, all laboratory tests will be carried out 3 times and the results set down in a report. The results of primary approval will be considered positive and will lead to the issuing of a quality certificate when the padlock appears to satisfy the requirements of section 3 in all of the tests.

NB: If no products are available from continuous production (e.g. in the case of prototypes) the results of primary approval can lead only to the conditional issuing of a quality certificate. Such products can only be marketed with the stars sign after the sample from continuous production and the prototype example have been shown to be identical, possibly following further primary approval.

6.2 Verification for maintenance of the SKG productcertificate

The certification institution will carry out periodical and unannounced verification as to whether the products satisfy the technical specification and whether the holder's quality system satisfies the requirements.
Supplying products under the quality certificate that do not satisfy the specifications of the quality certificate in accordance with the stipulations of these SKG-KE may, in the first instance (if no corrective measures are taken that are deemed adequate by the certification institution) lead to the withdrawal of the right to use the quality certificate for the product concerned and, in the case of a persistent lack of quality, will lead to the termination of the certification agreement.
In the case of complaints, the certificate holder must demonstrate to the satisfaction of the complainant that the product supplied by him/her is at least equal in value to what he/she is offering and provides a performance corresponding to that stated in the quality certificate, unless other agreements have been clearly made in the agreement. The certification institution is authorised to establish the justifiability of the complaint by means of verification (possibly in the factory) and to demand corrective measures.

6.3 Verification aspects and frequency of verification

The way in which the verification of the product is carried out, as well as the frequency of visits, will be established by the Board of Experts in accordance with the advice that the board provides to the certification institutions.

Rmk: In principle, no manual tests are carried out in the case of product verification for maintaining the quality certificate.

Rmk: Starting from the date of commencement of these SKG-KE, the verification frequency has been established as follows: For each certificate minimally 1 product per year. The anti-theft products needed for the verification check will be randomly acquired from market sources, in a manner determined by the certification institute.

6.4 Verification of the operation of Internal Quality Control

Once a year, the Internal Quality Control of each certificate holder will be verified and evaluated.

Rmk: The certification institution may decide to omit this verification in the case of companies that are ISO-9001 certified if, in the judgment of the certification institution, it has been sufficiently shown that quality control of the product and of production products certified in accordance with these assessment guidelines are part of ISO quality system and when it has been established that the institution responsible for ISO certification can make an informed judgment on this.

6.5 Verification of the use of identification marks

The certification institution will verify whether the identification marks and the method of marking have been correctly applied, as well as whether the product can be traced back to a quality certificate by means of this identification.

7. LIST OF DOCUMENTS CITED

EN 1670:1998	/ Building Hardware - Corrosion resistance - Requirements and test methods
EN-ISO 9001	/ Quality Management Systems – Requirements
EN-ISO/IEC 17025	/ General requirements for the competence of testing and calibration laboratories.
EN 45011	/ General criteria for certification bodies operating product certification.
EN 17021	/ General criteria for certification bodies operating managementsystem certification.
EN 12320	/ Building Hardware - Padlocks and padlock fittings - Requirements and test methods.
NEN 5096	/ Burglary prevention – Facade elements with doors, windows, skylights and permanent infill - Requirements, classification and testing methods.

APPENDIX 1
TOOLS USED IN MANUAL TESTING:

Category:	**1-star**	**2-star**	**3-star**
Assault time:	**3 min.**	**3 min.**	**5 min.**

Mechanical tools

Side-cutting nippers Knipex 160	X *)	X	X
Combination pliers Gedore 8210 -180		X	X
Pipe-wrench Knipex 88.01.250	X	X	X
Pipe-wrench 40 cm		X	X
Pipe-wrench 70 cm			X
Screwdriver L= 260 mm	X	X	X
Screwdriver L= 375 mm		X	X
Baby saw	X 45	X 90	
Saw frame with saw blades, HSS 12'' 24 tpi		X 45	X 90
Saw frame with saw blades, tungsten 12''		X 30	X 60
Adjustable wrench Bahco 10''		X	X
Set of chisels (4) HABERO CVL			X
Bench hammer 200 gr	X 30	X	
Bench hammer 500 gr			X 90
Crowbar L = 710 mm			X
Reinforcement cutting shears 45 cm		X	X
Reinforcement cutting shears 60 cm			X
Straight snips left- and right-hand L = 260 mm		X	X
Picking tool for tubular locks			X
Hand-picking set		X	X
Picking Pistol ILCO			X
Cable pliers 60 cm Felco			X
Nail puller HABERO 50 cm			X
Slide hammer MIDLOCK			X
Pipe spanner GEDORE 175-4			X
Additional set for NEN 5096 (without Bahco wrench and hammer)	X	X	X

Battery-powered tools

Battery-powered jigsaw (max. 9.6 Volts)	X
Saw blades, HSS and for SS	X
Saw blades, tungsten	X

Electrical equipment

Drilling machine **) (up to 320 W with drill bits up to and including 10 mm)	X
Lock picking tool HPC EPG -1	X

*) For class 1-star: maximum 3 cut movements
**) Instead of 9.6 V battery-driven tools.