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APPLICATION REGULATIONS

TRA 32 BENOR

BENOR

APPLICATION REGULATIONS

FOR THE

PRODUCT CERTIFICATION

OF

ELASTOMERIC PRODUCTS

UNDER THE

BENOR MARK

Version 8.0 of 2024-10-28

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1 INTRODUCTION

This chapter gives and explains some of the rules concerning the certification regulations.

1.1 TERMINOLOGY

This article defines some of the special terms and abbreviations used in these Application Regulations.

1.1.1 Definitions

Batch	Quantity of a mixture, produced using the same raw materials, the same production equipment and the same production parameters in a continuous production process.
Client	The party purchasing the product from the supplier. The definition applies to different types of purchaser: producers of other products, contractors, awarding authorities, authorities, et cetera.
Comparative test	A test carried out in pairs, in which the result of the control laboratory is compared with the result obtained by the supplier in order to verify the self-monitoring system.
Exclusive distributor	If a producer works with (an) exclusive distributor(s) for the Belgian market, this means that all deliveries of BENOR certified product articles for the Belgian market are made by this (these) distributor(s). In that case, direct delivery from the producer to a customer is prohibited. In all other cases, this term is not applicable.
Extrusion	Heating a plastic in a heated, forward-moving screw.
Hardness category	Category based on hardness determined via the IRHD method. Depending on the nominal hardness value chosen, these come under a particular category. For example, nominal hardnesses 46-55 correspond to hardness category 50 (Table 1; EN ISO 681-1).
Hardness IRHD	Property determined in accordance with test standard ISO 48. Can be implemented as N-IRHD (normal IRHD) or µ-IRHD (Micro-IRHD). In the case of discussion, the µ-IRHD method prevails.
Injection moulding process	Process in which the rubber mixture is pressed though or into a mould by means of extrusion and then cooled and released from the mould where appropriate.

Mixture	Rubber mixture, regarded here as a raw material, ready for further processing by way of extrusion, injection moulding or any other process.
Producer	Company responsible for manufacturing a product.
Product	Result of an industrial process or activity that is the subject of one or more reference documents. This a collective noun for all of the product articles and product types to which one and the same Application Regulations or certificate applies. In the light of these application regulations, a product refers to elastomeric seals or elastomeric bearings.
Product article	Set of units of a product with the same characteristics and performance that are produced in a specific manner and comply with the same technical data sheet.
Product type	Group of manufactured goods with similar characteristics. One product may be divided into different product types on the basis of the applicable reference document, property categories, application, et cetera. The product types for elastomeric products are: - Elastomeric seals in vulcanized rubber, - Elastomeric seals in thermoplastic elastomers, - Elastomeric seals in cast polyurethane sealing elements, - Elastomeric bearings in vulcanized rubber.
Production unit	Technical installation(s) linked to a geographical location which is/are used by a supplier where the product is made, as defined in the Application Regulations.
Quality	The type of rubber used during the manufacture of the sealing. This type is defined by its chemical composition.
Reference document	Document (standard, Technical Requirement or any other technical specification) that specifies the technical characteristics that the staff, equipment, production unit, raw materials, production processes and/or the product must comply with and which states that the relevant Application Regulation applies to a certain product and its manufacture.
Semi-finished product	Elastomeric profile, regarded here as a raw material, ready for further processing by way of cutting and splicing.
Sampling	Sampling can be subdivided into: - removing part or all of a product or component; - applying an identification/mark to a defined part or to an entire product or component, for the purpose of inspecting and testing it.

Supplier	The party responsible for ensuring that the product meets the certification requirements. This definition applies to producers, distributors and importers. If a supplier is referred to with regard to raw materials, general equipment, control equipment or services, this is specifically stated.
Type test	A series of verifications to determine initially (initial type test) or possibly to confirm periodically (repeat type test) the characteristics of a product article and its conformity.

1.1.2 Abbreviations

TRA	Application Regulations
PTV	Technical prescriptions
TAR	Tariff regulations

1.1.3 References

CRC 01 BENOR	General Certification regulations for the certification of products in the construction sector under the BENOR mark
PTV 832-5	Technical prescriptions for cast iron covers: elastomeric bearings - vulcanized rubber
PTV 832-1	Technical prescriptions for elastomeric seals: Part 1: Vulcanized rubber
PTV 832-2	Technical prescriptions for elastomeric seals: Part 2: Thermoplastic elastomer
PTV 832-4	Technical prescriptions for elastomeric seals: Part 4: Cast polyurethane sealing elements
RNR 32	Regulatory Note for Gauging, Calibrations and Checks on Production Equipment and Checking Equipment for the certification of Elastomeric Products
TAR BENOR	Financial system within the framework of the BENOR mark of conformity
TAR 32	Tariff Regulations for the Certification of Elastomeric products within the framework of the BENOR mark of conformity

These Application Regulations incorporate dated and undated references. For dated references, only the edition cited applies. For undated references, the last edition of the referenced document applies, including any errata, addenda and amendments.

For any EN standards referred to in these Regulations, it shall always be the corresponding Belgian NBN EN publication that applies. The certification body may allow the use of a publication other than the Belgian publication, provided that its content is identical to the Belgian publication.

1.2 AVAILABILITY OF THE CERTIFICATION REGULATIONS

This article describes how the certification regulations are made available.

The current version of the certification regulations is available free of charge on the certification body's website.

A printed version of the certification regulations can be ordered from the certification body. The certification body has the right to charge for these.

It is not permitted to make any modifications to the original certification regulations approved by the sectoral commission and/or registered certification regulations by the non-profit organisation BENOR.

1.3 STATUS OF THESE APPLICATION REGULATIONS

This article refers to the data concerning the version, approval and ratification of these Application Regulations.

1.3.1 Status of these Application Regulations

These Application Regulations are version 8.0 which replace version 7.0.

1.3.2 Approval of these Application Regulations

These Application Regulations were approved by the Sectoral Commission on the 12th of November 2024.

1.3.3 Ratification of these Application Regulations

These Application Regulations were ratified by the Management body of COPRO on the 3rd of December 2024.

1.3.4 Ratification of these Application Regulations

These Application Regulations were submitted to BENOR non-profit organisation on the 9th of December 2024.

1.5 QUESTIONS AND OBSERVATIONS

Questions or observations concerning the certification regulations must be sent to the sectoral organisation or the certification body.

2 OVERVIEW OF PRODUCT CERTIFICATION

This chapter indicates who is responsible for preparing the certification regulations. The objectives and scope of the product certification are described.

2.1 PREPARATION OF THE CERTIFICATION REGULATIONS

This article indicates who is responsible for preparing the various certification regulations.

2.1.2 Preparation of these Application Regulations

A specific Application Regulation shall be drawn up for each product. This is done in principle by a specialist technical sectoral commission on which the parties with an interest in the area of the product in question are represented. The sectoral organisation shall be responsible for organising the sectoral commission (Art. 3.1.4).

The structure of these Application Regulations follows the structure of the General Certification Regulations CRC 01 BENOR, supplementing the provisions of the same.

With the exception of the additions and/or changes set out in these Application Regulations, the articles of the General Certification Regulations CRC 01 BENOR apply.

These articles refer to the articles of the General Certification Regulations CRC 01 BENOR.

2.2 OBJECTIVES

This article describes the objectives of the certification regulations and the product certification.

2.2.2 The goal of these Application Regulations

2.2.2.1 These Application Regulations contain all the specific and additional rules for the certification of elastomeric profiles. They also contain the rules relating to applications for a certification and additional information.

2.2.2.2 The Application Regulations shall be used by the sectoral organisation, the certification body and the inspection body in carrying out their tasks, for example when dealing with the certification application and external surveillance.

2.2.3 The goal of the product certification

The BENOR mark is a voluntary mark that is owned by the Bureau for Standardisation.

The BENOR mark is intended to confirm the confidence in the actions taken by the supplier with regard to the declaration of the conformity of a product with the reference documents. These reference documents may be agreed in a public voluntary framework and may be based on Belgian, European or international legislation.

The BENOR mark thus offers the client a sufficient degree of certainty that the product satisfies the well-defined quality requirements.

The BENOR mark does not declare the product's conformity with its performance and characteristics as stated by the supplier, but confirms that a sufficient degree of confidence indicates that the supplier is permanently capable of guaranteeing the conformity of a product that it produces and/or supplies in accordance with the rules set out in the reference documents.

The BENOR mark acts in the public interest by promoting the best practices in construction and thus contributes to technical and economic progress.

These application regulations are, furthermore, conceived in such a way that precisely those aspects are safeguarded that are important for elastomeric profiles according to the interested parties. This concerns, among other things, improving consumer protection, meeting the expectations of the market and defending the public interest.

Under no circumstances does the certification affect the liability of the designer, the author of the tender document, the design or research consultancy, the contractor or the supplier.

2.3 SCOPE

The scope of the product certification is described in this article. It states what is and what is not included in the product certification. The different types of certification regulations and reference documents are listed.

2.3.1 Object of product certification

2.3.1.1 The object of product certification is the control of production and supply of elastomeric profiles.

In this regard we can look at:

- implementing and monitoring a quality plan;
- the type testing of a product article or product type;
- the receipt of the raw materials to be used in the production;
- the use of appropriate equipment and staff;
- the actual production;
- the controls on raw materials;
- the controls on the production process;
- the controls on the elastomeric product;
- the recording and archiving of all relevant data and results.

The product types that belong to the certified production part are the elastomeric profiles which comply with PTV 832-1, PTV 832-2, PTV 832-4 or PTV 832-5.

The input for the certification consists of all relevant requirements of the applicable reference documents relating elastomeric profiles. The output conforms to elastomeric profiles for sealings and bearings.

2.3.1.2 The conformity of the raw materials used in production also falls under the product certification.

In the framework of these application regulations, unhandled mixtures are regarded as raw materials. The supplier uses the appropriate raw materials as described in PTV 832-1, PTV 832-2, PTV 832-4, and/or PTV 832-5 and carries out a control on the raw materials used. Depending on the results of this control, the supplier takes appropriate actions in accordance with these Application Regulations.

2.3.1.3 The conformity of the resulting work is not covered by the product certification.

The use of compliant elastomeric profiles is an essential link in the realisation of a high quality and conforming construction. However, given that there are still parameters that are not covered by the product certification, this certification cannot fully guarantee that the resulting structure will meet the project owner's quality requirements. The parameters not covered by the product certification include:

- the design of the structure;
- products not falling within the scope of the product certification;
- the uncertified execution of a project.

2.3.5 Application Regulations

2.3.5.1 These Application Regulations apply to the issue of a BENOR certificate and the use of the BENOR mark for elastomeric profiles in accordance with at least one of the documents mentioned in Article 2.3.7.

2.3.5.2 BENOR certification of elastomeric profiles is voluntary.

2.3.5.3 For elastomeric profiles for which a harmonized EN standard applies, the BENOR certificate is only awarded after the supplier has complied with all the rules on the CE marking for the elastomeric product.

2.3.6 Additional regulations and circulars

2.3.6.3 The rates that apply in the context of product certification are included in the Tariff Regulations for the Certification of Products TAR BENOR and the Tariff Regulations for the Certification of Elastomeric products TAR 32.

2.3.7 Reference documents

2.3.7.1 There are no applicable standards.

2.3.7.2 In the context of the BENOR certification there are no applicable tender documents.

2.3.7.3 The applicable Technical Requirements are PTV 832-1, PTV 832-2, PTV 832-4 and PTV 832-5.

2.3.7.4 There are no other applicable reference documents.

2.3.9 Exempt production parts to which the BENOR mark does not apply

2.3.9.1 There are no production parts that are constantly delivered outside of the BENOR mark.

2.4 CERTIFICATE

This article describes the rules relating to the certificate.

2.4.2 Scope of the certificate

2.4.2.1 Each certificate is issued per product and per production unit. The scope of the certificate may be limited to the products for which a certified technical data sheet exists on the extranet from COPRO (extranet.copro.eu).

2.4.2.3 By issuing the certificate, the certification body acknowledges that there is a sufficient degree of confidence in the actions taken by the certificate holder in order to ensure the conformity of the elastomeric profiles to the technical data sheets and the reference documents.

2.4.3 The certificate

2.4.3.1 The certificate must contain at least the following information:

- the certificate number;
- the identity of the certification body;
- the identity and registered office of the certificate holder;
- the identity, the identification number and the address of the production unit;
- the reference documents;
- the date of issue of the certificate;
- a reference to the certification body's website, with regard to the validity of the certificate;
- the scope of the certificate.

The certificate describes the product in accordance with the Application Regulations.

2.4.7 Suspension by the certificate holder

2.4.7.3 The maximum permitted period during which the existing certified stock may still be supplied under the BENOR mark is 12 months from the date on which the suspension takes effect.

2.4.8 Cessation by the certificate holder

2.4.8.3 The maximum permitted period during which the existing certified stock may still be supplied under the BENOR mark is 12 months from the date on which the cessation takes effect.

2.5 IDENTIFICATION OF THE PRODUCT

This article focuses on the identification of the product. In addition to an internal and public identification there is also the BENOR logo, which may be used by the certificate holder only under strict conditions.

2.5.2 Public identification

The commercial name of the product chosen by the producer is used as public identification.

The identification of the elastomeric profile is according to the applicable PTV, Article 5.2.2.

In addition, the packaging is identified with reference to the product article's technical data sheet code. If possible, the profile is identified with reference to the product article's technical data sheet code.

The official and commercial names of each product are according to Article 5.1 of the applicable PTV.

2.5.3 Identification using the BENOR mark

The supply of a product article under the BENOR mark is illustrated by means of an identification marking on the packaging and if possible on the product itself. This is done in accordance with Article 2.6.3.

2.5.4 Identification of exempt production parts

Reference may not be made to the BENOR mark or a technical datasheet code for exempt production parts (see Art. 2.7).

2.5.5 Delivery note

2.5.5.1 The delivery notes are drawn up for delivery of the product by the supplier (same entity as the producer) to the customer.

The delivery notes are divided into:

- delivery notes for the delivery of elastomeric products from the producer to the customer or the exclusive distributor(s);
- delivery notes for the delivery of elastomeric products from the exclusive distributor to the customer.

2.5.5.2 The following information must be included on each delivery note from the producer to the customer or the exclusive distributor(s):

- name and, if possible, address of the supplier;
- name and address of the production unit;
- name and contact details of the client or the exclusive distributor;
- public identification of the product article (Art. 2.5.2);
- product article technical data sheet's code (fast code) in the following form: "Technical data sheet: fast code AAAA/CCCC (see extranet.copro.eu)" or "TDS: fast code AAAA/CCCC", whereby the fast code satisfies Article 2.7.2;
- departure date from the production unit;
- quantity per product article;
- mandatory data according to the applicable reference documents;
- once the certificate has been issued, reference may be made to the BENOR mark, for each certified product article, in accordance with the rules of Article 2.6.4.

Each delivery note from the exclusive distributor to the customer must contain at least the following information:

- name and address of the exclusive distributor;
- name and contact details of the customer;
- the public identification of the product: (Art. 2.5.2);
- date of departure from the exclusive distributor;
- the code of the product's technical datasheet (quick code) by means of the following: "Technical datasheet: quick code AAAA/CCCC (see extranet.copro.eu)", where the quick code complies with Article 2.7.2;
- quantity per product article;
- the mandatory data according to the relevant reference documents;
- from the moment that the certificate is issued, reference is made to the BENOR mark for each certified product in accordance with the rules of Article 2.6.4.

2.6 USE OF THE BENOR MARK

This article deals with the use of the BENOR mark.

2.6.1 Typographical description of the BENOR mark

2.6.1.2 When it is not technically possible to use the BENOR mark as described in Article 2.6.1.1, an alternative identification is permitted. All rules governing the use of the BENOR mark then apply to the use of the alternative identification.

2.7 TECHNICAL DATA SHEET

2.7.1 General

2.7.1.1 The supplier shall prepare a technical data sheet for each certified product article.

2.7.1.2 Every information listed on the technical data sheet is based on the type test.

2.7.1.3 For each delivery of elastomeric profiles, the client must be provided with the corresponding valid technical data. This is made possible by the certification body's website.

2.7.1.4 The information and results contained in the technical data sheet are used to assess the results of the self-monitoring and external control.

2.7.1.5 The information given on the technical data sheet relating to the essential characteristics of a harmonized standard, must precisely match the information stated by the supplier in the declaration of performance.

3 THE STAKEHOLDERS

This chapter deals with the various parties involved in the product certification.

3.2 CERTIFICATION BODY

This article sets out information and rules concerning the functioning of the certification body.

3.2.5 Registered office and Secretariat

3.2.5.1 The only certification body for the certification of elastomeric profiles is COPRO.

3.3 INSPECTION BODY

This article deals with the cooperation of the certification body with the inspection body.

3.3.2 Designation of the inspection body

3.3.2.1 COPRO acts as an inspection body for elastomeric profiles.

3.3.2.2 Not applicable.

3.3.2.3 Not applicable.

3.4 SUPPLIER

This article deals with the supplier, the key player in the delivery of the product and therefore also in the product certification. A supplier may be a manufacturer, distributor or importer. He is the player who is responsible for ensuring that the elastomeric product meets the requirements on which the certification is based and guarantees this to the client.

3.4.2 Possible suppliers

3.4.2.1 In the General Certification Regulations the term ‘supplier’ is used for an applicant or certificate holder.

The applicant or the certificate holder is responsible for ensuring that the rules of this Application Regulation and the applicable reference documents are complied with. He can pass on certain tasks to another supplier or to the producer but bears the final responsibility for this as the applicant or certificate holder.

The supplier can also be the producer itself, a distributor or an importer.

4 REQUIREMENTS FOR A CERTIFIED PRODUCT

This chapter describes what is required to achieve a certified product. In the first place, this means a knowledgeable workforce. With appropriate equipment and compliant materials these employees manufacture the product at a specific production unit. Initial, a type test is required. The production and everything that comes with it must be carried out in accordance with a documented quality plan.

4.1 STAFF

This article describes the rules relating to staff. It focuses in particular on the control staff and staff training.

4.1.1 General

4.1.1.3 The following functions are described:

- senior management;
- quality manager;
- self-monitoring manager (at the production unit);
- responsible for the production (the producer);
- responsible for the supplies (the supplier);
- laboratory head.

4.2 EQUIPMENT

This article describes the rules relating to equipment. A distinction is made between production equipment and control equipment.

4.2.2 Laboratory and control equipment

4.2.2.2 The supplier may refer to an external laboratory for some or all of the controls within the framework of the self-monitoring system, to which the requirements of Article 3.5 are applicable. The reciprocal obligations of the supplier and the external laboratory for self-monitoring are defined in a written agreement.

4.2.2.4 These controls must be carried out by the supplier if they apply for the relevant product article: determination of dimensions, hardness µ-IRHD or N-IRHD, determination of tensile stress-strain properties, determination of tear strength, accelerated ageing and determination of compression set.

4.3 RAW MATERIALS AND SEMI-FINISHED PRODUCTS

This article describes the rules relating to raw materials and semi-finished products.

4.3.1 Requirements for raw materials and semi-finished products

4.3.1.1 The raw materials and semi-finished products must meet the requirements of the applicable PTV's and the requirements of the applicable reference documents.

4.3.2 Validation of raw materials and semi-finished products

4.3.2.1 The supplier must have an overview of all the validated raw materials and semi-finished products that may be used in production.

4.3.2.3 The data concerning the mixtures and semi-finished products actually used for a particular production must be kept by the supplier in a traceable manner (Art. 6.1.2). The traceability can then be guaranteed by a reference to a unique identification of the mixtures and semi-finished products (delivery note number, batch number, et cetera).

4.3.3 Supply of raw materials and semi-finished products

The delivery documents for the mixtures and semi-finished products are kept in the register or raw materials (Art. 6.1.2).

4.3.4 Storage of raw materials and semi-finished products

Each mixture and semi-finished product is stored in an orderly and organised manner.

The producer must take the necessary actions to guarantee the identification and quality of the raw materials and the semi-finished products.

4.3.5 Disposal of raw materials and semi-finished products

If applicable, the data and disposal documents are kept in the register of raw materials in a traceable manner (Art. 6.1.2).

4.5 PRODUCT

This article describes the rules relating to the product itself. This covers everything from the determination of the requirements, production, up to the delivery of the product.

4.5.1 Period of activity

4.5.1.1 Production may not remain at the same level throughout the year. If production is irregular or temporarily interrupted, or if the number of production periods is lower than the number of external standard inspections determined in Article 7.2.3, the certificate holder may be required to notify the certification body in advance of the period of activity or interruptions, so that the external monitoring can be adapted accordingly.

In the event of production or delivery under the BENOR mark continuing to be interrupted, a minimum of external supervision is provided (Art. 7.2.3.2).

If production and delivery under the BENOR mark continue to be interrupted, the certificate holder can also opt at his own request for a suspension of the certificate in accordance with Article 2.4.7.

4.5.1.2 In order to maintain confidence in the conformity of the elastomeric profiles after an interruption of the period of activity, the certification body may instruct the inspection body to carry out an additional inspection prior to the restart of production.

4.5.2 Determination, evaluation and communication of the requirements

Not applicable.

4.5.3 Client's order

Not applicable.

4.5.4 Production planning

Not applicable.

4.5.5 Production plan

4.5.5.1 The supplier must draw up a production data sheet with the production parameters per product article.

4.6 QUALITY PLAN

This article describes the rules that are imposed on the supplier's quality plan. The quality plan includes a quality manual and a technical file. The quality manual relates to the organisation of the supplier and the different procedures. The technical file may be regarded as a supplementary file with lists, summaries and reports about all kinds of related issues.

4.6.2 Quality manual

4.6.2.3 For those parts of the quality manual the supplier is required to notify the certification body immediately of any temporary or permanent change resulting in a discrepancy with the situation described in the quality manual:

the organogram and procedures in regard to outsourcing inspections or activities, handling deviations, measures for non-compliant production parts and inspections.

4.6.3 Technical file

4.6.3.2 The technical file contains:

a) an overview of all equipment used during production, with a short description;

b) a list of the names of members of staff involved in self-monitoring, including in particular the names of the quality manager, the self-monitoring manager and their deputies, as well as those persons authorised to receive the inspection body's inspection reports;

c) a list of the names of members of staff who may be involved in the production, delivery and control;

d) an overview of the control equipment that may be used in the context of the self-monitoring process;

e) if appropriate, a list of the external self-monitoring laboratories approved by the supplier, with an indication of the possible controls;

f) a list of the valid versions of all applicable reference documents;

g) the method of identifying the product;

h) where appropriate, the type test reports authenticated by the certification body;

i) where appropriate, the by the certification body approved derogations from the Application Regulations;

j) where appropriate, the correlation reports approved by the certification body for alternative control and test methods;

k) where appropriate, a list with the details of the exclusive distributor(s).

4.6.3.3 For those parts of the technical file the supplier is required to notify the certification body immediately of any temporary or permanent change resulting in a discrepancy with the situation described in the technical file:

Points b, e, g and k of Article 4.6.3.2.

4.7 TYPE TEST

This article deals with type testing of the product. It is more commonly called Type Testing or determination of product type.

4.7.1 General

4.7.1.1 Type tests are conducted according to the requirements of the applicable PTV.

4.7.1.2 The type test is carried out according to Article 3.6 of the concerned PTV. Type tests shall in principle be carried out by the supplier. If the supplier does not itself conduct certain controls of the type test, these shall be performed by an external laboratory that satisfies the requirements of Article 3.5.

4.7.2 Scope

The type test is conducted for each quality/mixture at the start of certification with a view to laying down specifications in the technical datasheet. The scope of the type tests is according to the applicable PTV.

4.7.3 Requirements

4.7.3.1 The requirements for the type test are stated in the applicable PTV.

4.7.5 Validity

4.7.5.1 All type testing reports are kept in the supplier’s technical file.

4.7.5.2 The validity of type tests is according to the applicable PTV.

4.7.6 Modifications

Rules concerning modifications are described in the applicable PTV.

5 OBTAINING A CERTIFICATE

This chapter describes how a supplier can apply for and ultimately obtain a certificate and the rules that must be followed.

5.2 APPLICATION PERIOD

This article deals with the period between the receipt of the application and the issue of the certificate. It describes what is authorised during that period, what must be done and what must not be done.

5.2.4 Trial period

5.2.4.2 The trial period commences on the date of the initial inspection, subject to the favourable opinion of the inspection body.

Before the trial period can start, the following results of the start-up inspection must be completed:

- availability of trained personnel;

- availability of all necessary compliant and calibrated control equipment;

- a compliant production unit (storage, ...);

- availability of raw materials;

- availability of all relevant reference documents;

- a draft quality plan.

5.2.4.3 The maximum duration of the trial period is one year. The minimum duration of the trial period is 10 production days per product type.

5.2.5 Self-monitoring during the trial period

During the trial period, the self-monitoring applies as stipulated in Article 6.

The minimum number of tests before the end of the trial period, whose results comply with the applicable PTV, is given in the table below. In addition, the three most recent test results of every characteristic mentioned in the table below shall be compliant.

Property	Minimum number of conforming tests
Dimensions	5 / product article / quality
Length	5 / product article / quality
Imperfections and defects	10 / product type / quality
Hardness	10 / product type / quality
Tensile strength and elongation at break	10 / product type / quality
Compression set in air	
at 70 °C	3 / product type / quality
at 125 °C (1)	3 / product type / quality
Accelerated ageing in air – change in hardness, tensile strength and elongation at break	
at 70 °C	3 / product type / quality
at 125 °C (1)	3 / product type / quality
Strength of spliced joints (2)	10 / product article / quality
Tear strength (3)	10 / product article / quality
Tear strength for joint seals for hot water supply (1)	10 / product type / quality

(1) Only applicable for elastomeric seals in vulcanized rubber which are used for hot water supply. Not applicable for the other product types.
(2) Only applicable for elastomeric products in vulcanized rubber and for elastomeric bearings in vulcanized rubber.
(3) Only applicable for elastomeric bearings in vulcanized rubber.

The minimum number of tests for the other properties mentioned in the applicable PTV but not in the table above, whose results comply with the applicable PTV, is one per quality. In addition, the most recent test result shall comply with the requirements of the applicable PTV.

5.2.7 External surveillance during the trial period

During the trial period, the external surveillance as set out in Article 7 is applied.

The minimum number of samples on which tests are carried out under supervision of the inspection body and for which the test results comply with the requirements of the applicable PTV, is two per product type. In addition, per product type, the test results of the two most recent samples must be compliant.

Per product type, all properties mentioned in the table underneath are determined at least twice by an external laboratory. The conformity of the entire set of tests must meet the requirements of the applicable PTV. Furthermore, for the last two determinations, the conformity of the entire set of tests must meet the requirements of the applicable PTV.

Property
Hardness
Tensile strength and elongation at break
Compression set in air at 70 °C
Compression set in air at 125 °C (1)
Accelerated ageing in air – change in hardness, tensile strength and elongation at break 7 days at 70 °C (2) 7 days at 125 °C (1)
Tear strength (3)

(1) Only applicable for elastomeric seals in vulcanized rubber which are used for hot water supply. Not applicable for the other product types.
(2) For cast polyurethane sealing elements only change in tensile strength and elongation at break is to be determined.
(3) Only applicable for elastomeric bearings in vulcanized rubber.

The minimum number of compliant comparative tests is two per product type.

5.2.8 Closure of the application file

5.2.8.1 If the trial period cannot be closed with a positive result after the period of one year, the applicant is notified in writing by the certification body of the closure of the application file. The applicant may then, if desired, submit a new application.

6 SELF-MONITORING

This chapter deals with the control carried out by the supplier as part of the product certification. It contains details of what must be monitored and how the supplier guarantees the traceability of the controls and results. It also indicates what must be done in the event of shortcomings.

6.1 REGISTRATION AND ARCHIVING

This article sets out the rules relating to the traceable archiving of monitoring, controls and results.

6.1.1 Worksheets

6.1.1.5 Digitalisation of worksheets is allowed.

6.1.2 Registers

6.1.2.3 The supplier guarantees the traceability of the self-monitoring on the basis of registers or another registration system to be approved by the certification body.

Type test register:

The type tests stipulated in Article 4.7.3.1 are recorded in the test register.

Raw materials register:

This register contains

- the specifications of the producer regarding the supplied raw materials;

- the control results of the tests performed by the producer on the raw materials;

- test results supplied by the manufacturers of the supplied raw materials;

- the delivery notes of all the supplied raw materials.

Production register:

The register contains the details of the manufacture of the end products and the self-produced mixtures. The following information must be included as a minimum requirement: production date, quality of the manufactured mixture or product article, the manufactured quantities per day.

Stock and deliveries register:

This register contains a copy of all the delivery notes.

Tests register:

All conforming and non-conforming test results relating to the end product are recorded in this register, as well as the follow-up to a non-conforming result.

If a producer avails itself of an external laboratory for the internal tests, the results obtained by this laboratory are entered in the registers no later than one working day after the results are made known.

Equipment register:

This register contains:

- all data and results relating to the monitoring of the equipment;
- an overview of the production and control equipment in accordance with Regulatory Note RNR 32;
- the calibration certificates as well as the calibration and inspection reports for the equipment.

Control equipment register:

This register contains:

- an overview of the monitoring equipment in accordance with Regulatory Note RNR 32;
- the calibration certificates as well as calibration and inspection reports for the monitoring equipment, classified per device.

Complaints register (see Articles 8.1.3 and 8.1.4):

This register contains all incoming, internal and outgoing data and correspondence concerning a complaint, according to Articles 8.1.3.2 and 8.1.4.2.

6.1.2.5 All records are available for inspection at the production unit.

6.1.2.7 During the inspection, the inspection body may mark the pages of a register.

6.1.2.9 All registers described in Article 6.1.2.3 may be kept digitally and not on paper.

6.2 CONTROLS WITHIN THE FRAMEWORK OF SELF-MONITORING

This article sets out the rules in relation to all checks carried out by the manufacturer as part of the self-monitoring process in the context of product certification.

6.2.2 Control locations

The inspections and tests can be conducted:

- on the production unit, in an enclosed space or otherwise;
- at a distributor, an importer or the delivery location;
- in a laboratory room at a different location.

6.2.3 Self-monitoring of raw materials and semi-finished products

In the framework of these application regulations, unhandled mixtures are regarded as raw materials.

For each mixture and semi-finished product the producer has to specify

- which are the possible suppliers,
- which are the internal specifications,
- how these specifications are verified and at which frequency.

When the internal specifications requires testing, the producer has to perform these tests prior to the acceptance of the delivery (unless otherwise specified in the internal specifications). In case of doubt, the producer can decide to perform tests on the raw material or semi-product before accepting the delivery.

All observations are to be recorded, together with the actions taken.

6.2.4 Self-monitoring of the production unit

The producer has to monitor constantly the production unit (stock of raw materials and semi-products, stock of the finished product). All observations are to be recorded, together with the actions taken.

Half-finished product and final products shall be stored as such that all product units remain easily accessible for checking purposes.

Visual checks shall be made in the warehouse for damages that could possibly occur during product handling.

Approved products shall be stored clearly separate from dubious or rejected products.

6.2.5 Self-monitoring of the production process

The producer has a production sheet that is kept with the production equipment and which lists the production parameters to be checked.

6.2.6 Self-monitoring of the product

The minimum test frequency for the self-monitoring of elastomeric products is mentioned in the tables underneath.

6.2.6.1 Elastomeric seals in vulcanized rubber

Property	Frequency
Dimensions	1 / week / product article / quality (1)
Length	1 / week / product article / quality (1)
Imperfections and defects	Continuous
Hardness	1 / day / product type / quality
Tensile strength and elongation at break	1 / day / product type / quality
Compression set in air	
at 70 °C	1 / month / product type / quality
at 125 °C (2)	1 / month / product type / quality
at 23 °C	1 / year / product type / quality
at -10 °C	1 / year / product type / quality
Accelerated ageing in air – change in hardness, tensile strength and elongation at break	
at 70 °C	1 / month / product type / quality
at 125 °C (2)	1 / month / product type / quality
Stress relaxation in compression	
7 days at 23 °C	1 / 5 year / product type / quality
100 days at 23 °C	1 / 5 year / product type / quality
7 days at 125 °C (2)	1 / 5 year / product type / quality
Volume change in water	
at 70 °C	1 / year / product type / quality
at 95 °C (2)	1 / year / product type / quality
Ozone resistance	1 / year / product type / quality
Tear strength for joint seals for hot water supply (2)	1 / day / product type / quality
Compression set in water for joint seals for hot water supply (2)	1 / 5 year / product type / quality
Strength of spliced joints	5 / day / product article / quality
Low temperature performance at -25 °C (3)	1 / year / product type / quality
Volume change in oil (3)	1 / year / product type / quality
Tear strength	1 / day / product type / quality
Chemical resistance	1 / 6 months / product type / quality
High temperature resistance (3)	1 / 6 months / product type / quality

High chemical resistance (3)	1 / 6 months / product type / quality

(1) Also at the start and in the end of the production period, after change of extrusion profile or after mould change.
(2) This characteristic is only applicable in case the elastomeric product is used for hot water supply.
(3) Optional test.

Each of these properties is determined according to the test method mentioned in PTV 832-1.

6.2.6.2 Elastomeric seals in thermoplastic elastomers

Property	Frequency
Dimensions	1 / week / product article / quality (1)
Length	1 / week / product article / quality (1)
Imperfections and defects	Continuous
Hardness	1 / day / product type / quality
Tensile strength and elongation at break	1 / day / product type / quality
Compression set in air	
at 70 °C	1 / month / product type / quality
at 23 °C	1 / year / product type / quality
at -10 °C	1 / year / product type / quality
Accelerated ageing in air – change in hardness, tensile strength and elongation at break	
at 70 °C	1 / month / product type / quality
at 125 °C (2)	1 / month / product type / quality
Stress relaxation in compression	
7 days at 23 °C	1 / 5 year / product type / quality
100 days at 23 °C	1 / 5 year / product type / quality
Volume change in water	
at 70 °C	1 / year / product type / quality
Ozone resistance	1 / year / product type / quality
Volume change in oil (2)	1 / year / product type / quality

(1) Also at the start and in the end of the production period, after change of extrusion profile or after mould change.
(2) Optional test.

Each of these properties is determined according to the test method mentioned in PTV 832-2.

6.2.6.3 Cast polyurethane sealing elements

Property	Frequency
Dimensions	1 / week / product article / quality (1)
Length	1 / week / product article / quality (1)
Imperfections and defects	Continuous
Hardness	1 / day / product type / quality
Tensile strength and elongation at break	1 / day / product type / quality

Compression set in air	
at 70 °C	1 / month / product type / quality
at 23 °C	1 / year / product type / quality
at -10 °C	1 / year / product type / quality
Accelerated ageing in air – change in hardness	
at 70 °C	1 / month / product type / quality
Stress relaxation in compression	
7 days at 23 °C	1 / 5 year / product type / quality
100 days at 23 °C	1 / 5 year / product type / quality
High chemical resistance (2)	1 / 6 months / product type / quality

(1) Also at the start and in the end of the production period, after change of extrusion profile or after mould change.
(2) Optional test.

Each of these properties is determined according to the test method mentioned in PTV 832-4.

6.2.6.4 Elastomeric bearings in vulcanized rubber

Property	Frequency
Dimensions	1 / week / product article / quality (1)
Length	1 / week / product article / quality (1)
Imperfections and defects	Continuous
Hardness	1 / day / product type / quality
Tensile strength and elongation at break	1 / day / product type / quality
Compression set in air	
at 70 °C	1 / month / product type / quality
at 23 °C	1 / year / product type / quality
at -10 °C	1 / year / product type / quality
Accelerated ageing in air – change in hardness, tensile strength and elongation at break	
at 70 °C	1 / month / product type / quality
Volume change in water	
at 70 °C	1 / year / product type / quality
Ozone resistance	1 / year / product type / quality
Abrasion resistance	1 / 5 year / product type / quality
Tear strength	1 / day / product type / quality
Chemical resistance	1 / 6 months / product type / quality
Resistance to de-icing salts	1 / 6 months / product type / quality
Strength of spliced joints	5 / day / product article / quality
Low temperature performance at -25 °C (2)	1 / year / product type / quality
Volume change in oil (2)	1 / year / product type / quality

(1) Also at the start and in the end of the production period, after change of extrusion profile or after mould change.
(2) Optional test.

Each of these properties is determined according to the test method mentioned in PTV 832-5.

6.2.7 Controls, calibrations and verifications of the equipment

The controls, calibrations and verifications of the production equipment and the control equipment are carried out in accordance with the rules of Regulatory Note 32. If inspections, calibrations or adjustments indicate that a piece of equipment is non-compliant, the supplier immediately investigates the effect on the results. If this review shows that conformity to the reference documents is not guaranteed, the supplier shall initiate appropriate measures immediately.

6.3 FOLLOW-UP OF SHORTCOMINGS

This article sets out what the supplier must do in the case of shortcomings.

6.3.1 Dealing with shortcomings

6.3.1.1 In case of serious shortcomings (breakdown or malfunctioning of laboratory equipment, discovery of a non-conformity after delivery of the product, ...) the supplier should contact the certification body.

Every deviation has to be clearly identified in the corresponding register. Every corrective or preventive action shall be recorded.

The rules to be followed on determining the deviation of a product are described in Article 6.3.2, 6.3.3 and 6.3.4.

6.3.3 Discovery of a non-conformity before delivery of the product

6.3.3.4 To avoid that any product declared non-conforming being delivered under the BENOR certificate, any non-conforming product must be destroyed, or the mention BENOR must be removed from the product.

If the mention BENOR cannot be removed, the product must be destroyed.

The delivery of rejected production parts is done at the discretion and under the sole and exclusive responsibility of the supplier.

7 EXTERNAL SURVEILLANCE

This chapter describes the rules pertaining to the external surveillance by the inspection body in connection with the product certification. The inspections can differ according to their content or the location in which they are conducted.

7.2 INSPECTIONS

This article deals with the inspections carried out by the inspection body. Inspections may differ according to their content or the location where they take place.

7.2.1 Content of the inspections

7.2.1.2 The external supervision can partly be done by means of remote inspections, provided that the producer and the certification body agree to it. The parts eligible for remote inspection are specified in Articles 7.2.1.3.

In case of deviations or sanctions, the agreement for remote inspections can be withdrawn.

7.2.1.3 The standard inspections cover:

- the control equipment for self-monitoring;
- the raw materials, as defined in the Application Regulations;
- the stock of raw materials;
- the production process;
- the product;
- the self-monitoring system;
- the implementation of controls within the framework of the self-monitoring system;
- following up changes to the quality plan;
- the work books and registers;
- the assessment of self-monitoring results;
- the identification of the product;
- the delivery of the product;
- if appropriate, the questionable production parts;
- carrying out controls under the supervision of the inspection body;
- samples for the comparative tests;
- evaluating the results of the comparative tests and controls carried out under the supervision of the inspection body;
- the implementation of corrective actions and corrective measures in case of non-conformity.

The following parts are eligible for remote inspection (non-exhaustive list):

- verification of the quality plan (except for the practical application of it on the production unit);

- the assessment of self-monitoring results;
- the assessment of ITT-test results;
- verification of delivery notes;
- the assessment of calibration reports;

7.2.1.4 The additional inspections may concern:

- controls that were not feasible at the time of the standard inspection;
- any controls in the external laboratory for self-monitoring;
- the conducting of checks and controls on non-certified raw materials under the supervision of the inspection body;
- any additional controls deemed necessary by the certification body, for example in the context of a complaint received or due to suspension or termination by the certificate holder;
- additional checks carried out at the request of the supplier, on identifying nonconformities in the self-monitoring system, which, according to the provisions of the Application Regulations, require the intervention of the inspection body;
- additional controls carried out as a result of a sanction imposed by the certification body (Art. 8.2);
- additional controls at the request of the supplier.

7.2.3 Planning and frequency of the inspections

7.2.3.1 An inspection of the production unit is planned, in principle, in consultation with the supplier. Other inspections can be conducted without informing the supplier beforehand.

7.2.3.2 The number of standard inspections is four per year per production unit. The standard inspections are distributed evenly over time, taking into account Articles 4.5.1, 7.3.1.3 and 7.3.2.2.

If since last inspection there has been no production of BENOR certified product articles, the certification body can decide to perform less inspections than the number of standard inspections foreseen on annual basis.

The minimum external surveillance in the event of production or delivery under the BENOR mark remaining interrupted consists of:

- one inspection within four years;
- after a year of interruption: an investigation into the ability of the certificate holder to continue to comply with the rules of the Application Regulations, with, in particular, the changes in personnel, equipment, raw materials, the production unit, the product and the quality plan since the previous inspection being checked. This investigation can be done via correspondence.

7.3 CONTROLS IN THE CONTEXT OF EXTERNAL SURVEILLANCE

This article sets out the rules relating to controls – and often certain tests - carried out within the framework external surveillance. These controls may be carried out by the supplier in the presence of the inspection body and/or by an external laboratory. If they are performed by the supplier's laboratory as well as a control laboratory, this relates to comparative tests.

7.3.1 Controls under the supervision of the inspection body

7.3.1.3 During each inspection the controls to be carried out under the supervision of the inspection body are mentioned in the table below.

Property	Minimum number of tests to be witnessed
Dimensions	2 / product type
Length	2 / product type
Imperfections and defects	2 / product type
Hardness	2 / product type
Tensile strength and elongation at break	2 / product type
Strength of spliced joints (1)	2 / product type
Tear strength (2)	2 / product type

(1) Only applicable for elastomeric products in vulcanized rubber and for elastomeric bearings in vulcanized rubber
(2) Only applicable for elastomeric bearings in vulcanized rubber

7.3.1.7 The transport of test samples to the laboratory is the responsibility of the supplier. The transport costs are to be borne by the supplier.

7.3.1.8 The cost of the controls performed by a control laboratory is to be borne by the supplier.

7.3.1.10 The results of controls conducted under the supervision of the inspection body are assessed by the inspection body in the same way as for self-monitoring.

7.3.1.11 The actions to be taken as a result of inadequate results of controls under the supervision of the inspection body are the same as for self-monitoring (Art. 6.3). The certification body can, furthermore, also impose a sanction, additional internal monitoring and/or additional external supervision.

7.3.2 Comparative tests

7.3.2.2 The tests which are submitted to a comparative test are shown in the table below. These tests will be executed twice a year for each product type (with a maximum of 1 series of tests per year on one product article).

Property
Hardness (1)
Tensile strength and elongation at break
Compression set in air at 70 °C
Compression set in air at 125 °C (2)
Accelerated ageing in air – change in hardness, tensile strength and elongation at break 7 days at 70 °C (3) 7 days at 125 °C (2)
(1) If the producer determines only N-IRHD, both N-IRHD and µ-IRHD will be determined by the control laboratory. (2) Only applicable for elastomeric seals in vulcanized rubber which are used for hot water supply. Not applicable for the other product types. (3) For cast polyurethane sealing elements only change in hardness is to be determined.

7.3.2.3 The sampling for the comparative tests is carried out according to the choice of the inspection body. The inspection body spreads the comparative tests over the various certified products. The supplier conducts the sampling and any preparation under the supervision of the inspection body.

7.3.2.6 The transport of the samples to the control laboratory happens is the responsibility of thesupplier. The transport is at the expense of the supplier.

7.3.2.9 The result of the comparative tests is assessed by the certification body. The results of a comparative test is considered satisfactory when the difference between the internal test result and the test result of the external laboratory is inferior to the following data:

Property	Requirement
Hardness method N	6 points
Hardness method M	7 points
Tensile strength	2,5 MPa
Elongation at break	130 %
Change in hardness after ageing	6
Change in tensile strength after ageing	20 %
Change in elongation at break after ageing	20 %

7.3.2.10 If a re-test is carried out, then all non-reproducible tests will be tested again. If a test is not reproducible after ageing, the test must be repeated in original conditions and in aged conditions.

Repeat tests shall be carried out by another laboratory of control. The laboratory shall be selected from the appointed control laboratories by the inspection body, with approval of the manufacturer. In case no other laboratory is available for the test, the re-tests may be conducted by the same control laboratory, if desired in the presence of the supplier, and, where appropriate, accompanied by a representative of the inspection body. In this case, the costs incurred for the inspection body to attend are borne by the supplier.

If the results of the repeat test are reproducible according to Article 7.3.2.9, then the results of the first laboratory of control are not taken into account. If this is not the case, the result of the comparative test will definitively be regarded as unsatisfactory.

9 RATES AND INVOICING

This chapter contains the financial rules, rates and rules on invoicing.

9.1 FINANCIAL RULES

9.1.5 Additional financial rules

Not applicable.

9.2 RATES

9.2.2 Certification contribution

The amount for the certification payments is included in the Tariff Regulations for the Certification of Elastomeric products within the framework of the BENOR mark of conformity TAR 32.

9.2.3 Inspection contribution

The amounts of the flat fee per inspection, performance fee, the travel allowance, transport costs and accommodation allowance are included in the Tariff Regulations for the Certification of Elastomeric products within the framework of the BENOR mark of conformity TAR 32.

9.2.4 Production contribution

Not applicable.

9.2.8 Indexing of rates

Indexation of all tariffs is done analogously to that described in TAR BENOR