

AR 192

May 2022

validated Dutch version

Approval requirement 192

Elastomeric seals in gas appliances and gas installations



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Foreword

This GASTEC QA (Dutch version) approval requirement has been approved by the Board of Experts product certification GASTEC QA, in which relevant parties in the field of gas related products are represented. This Board of Experts supervises the certification activities and where necessary require the GASTEC QA approval requirement to be revised. All references to Board of Experts in this GASTEC QA approval requirement pertain to the above mentioned Board of Experts.

This GASTEC QA Approval requirement (Dutch version) will be used by Kiwa Nederland BV in conjunction with the GASTEC QA general requirements and the KIWA regulations for certification.

This approval requirement is a translation from the Dutch validated version and can only be used as a supporting document.

Kiwa Nederland B.V.

Wilmersdorf 50
Postbus 137
7300 AC Apeldoorn

Tel. 088 998 33 93
Fax 088 998 34 94
info@kiwa.nl
www.kiwa.nl

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1 Introduction

1.1 General

This GASTEC QA approval requirement in combination with the GASTEC QA general requirements include all relevant requirements, which are adhered by Kiwa as the basis for the issue and maintenance of a GASTEC QA certificate for elastomeric seals in gas appliances and gas installations.

This GASTEC QA approval requirements replace the GASTEC QA approval requirements 192 "Elastomeric seals in gas appliances and gas installations" dated February 2019.

List of changes:

- Textual changes
- This version of the approval requirement refers to EN 549 from 2019
- Update of scope

The product requirements have changed.

1.2 Scope

This approval requirement is based on EN 549. This European Standard specifies the requirements for rubber materials used for gas appliances and gas indoor installations in contact with 1st, 2nd and 3rd family gases according to EN 437 with operating temperatures between -40°C to +150°C.

2 Definitions

In this approval requirement, the following terms and definitions are applicable:

Board of Experts: The Board of Experts Gastec QA

3 Product requirements

3.1 General

The product shall meet the requirements of EN 549: Rubber materials for seals and diaphragms for gas appliances and gas equipment.

4 Marking

4.1 Marking

Additional to the marking as described in EN 549, the rubber seals or sealing package upon which the marking cannot be applied, shall be clearly and durably marked with the GASTEC QA word mark or logo.

5 Quality system requirements

The supplier shall make a risk assessment of the product and production process according to chapter 3.1.1.1 and 3.1.2.1 of the GASTEC QA general requirements. The risk assessments shall be available to Kiwa for review.

6 Summary of tests

This chapter contains a summary of tests to be carried out during:

- The initial product assessment;
- The periodic product verification;

6.1 Test matrix

Description of requirement	Clause (EN 549)	Test within the scope of		
		Initial product assessment	Product verification	
			Verification	Frequency
Product information	4	X	X	1 x per year
Classification (min. klasse A2)	5	X	X	1 x per year
General	6.1	X	X	1 x per year
Requirements for rubber material used to manufacturer seals				
Hardness	6.2	X	X	1 x per year
Tensile strength	6.2	X	X	1 x per year
Elongation at break	6.2	X	X	1 x per year
Compression set	6.2	X		
Resistance to aging	6.2	X		
Resistance to gas	6.2	X		
Resistance to condensate/liquid phase of combustible gases	6.2	X		
Resistance to lubricants	6.2	X		
Resistance to ozone	6.2	X		
Requirements for rubber material uses to manufacturer diaphragms				
Hardness	6.3	X	X	1 x per year
Tensile strength	6.3	X	X	1 x per year
Elongation at break	6.3	X	X	1 x per year
Compression set	6.3	X		
Resistance to aging	6.3	X		
Resistance to gas	6.3	X		
Resistance to condensate/liquid phase of combustible gases	6.3	X		
Resistance to lubricants	6.3	X		
Resistance to ozone	6.3	X		
Evaluation of life-time for material used to manufacture seals	8	X		
Infrared spectra of the material	9	X		
Additional GASTEC QA requirement				
Marking	4	x	x	1 x per year

7 List of referenced documents and source

7.1 Standards / normative documents

All normative references in this Approval Requirement refer to the editions of the standards as mentioned in the list below.

EN 437: 2021

Test gases- test pressure – appliance categories

EN 549: 2019

Rubber materials for seals and diaphragms for gas appliances and gas equipment

7.2 Source

Parts of the text of this approval requirement have been based on EN 549.