

Flanges and their joints - Quality assurance inspection and testing of gaskets in accordance with the series of standards EN 1514 and EN 12560

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
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English Version

Flanges and their joints - Quality assurance inspection and testing of gaskets in accordance with the series of standards EN 1514 and EN 12560

Brides et leurs assemblages - Contrôle de l'assurance de la qualité et essais de joints conformément aux séries de normes EN 1514 et EN 12560

Flansche und ihre Verbindungen - Qualitätssicherungsprüfung und Prüfung von Dichtungen nach den Normen der Reihen EN 1514 und EN 12560

This European Standard was approved by CEN on 13 December 2020.

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European foreword

This document (EN 14772:2021) has been prepared by Technical Committee CEN/TC 74 “Flanges and their joints”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2021, and conflicting national standards shall be withdrawn at the latest by July 2021.

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

This document supersedes EN 14772:2005.

In comparison with the previous edition, the following technical modifications have been made:

- a) Introduction of 6.7 “Comparative graphite oxidation determination”.

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

Introduction

This document provides a set of quality assurance procedures which is applicable to a wide range of gasket types encompassing most types of industrial applications.

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1 Scope

This document specifies the quality assurance procedures that are applicable to ensure that delivered gaskets comply with the relevant product standards. This document sets down procedures by which a user can have confidence that the salient features of each batch of gaskets or gasket materials delivered to them will be constant.

The gasket types covered by this document are those that are within the scope of the EN 1514 series and EN 12560 series and are simultaneously within the scope of the EN 1591 series. An exception is those gaskets intended solely for domestic fluids (like water, waste water ...) which are based on rubber with or without reinforcement like fillers and/or inserts.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1514-1:1997, *Flanges and their joints — Dimensions of gaskets for PN-designated flanges — Part 1: Non-metallic flat gaskets with or without inserts*

EN 1514-2:2014, *Flanges and their joints — Gaskets for PN-designated flanges — Part 2: Spiral wound gaskets for use with steel flanges*

EN 1514-3:1997, *Flanges and their joints — Dimensions of gaskets for PN-designated flanges — Part 3: Non-metallic PTFE envelope gaskets*

EN 1514-4:1997, *Flanges and their joints — Dimensions of gaskets for PN-designated flanges — Part 4: Corrugated, flat or grooved metallic and filled metallic gaskets for use with steel flanges*

EN 1514-6:2003, *Flanges and their joints — Dimensions of gaskets for PN-designated flanges — Part 6: Covered serrated metal gaskets for use with steel flanges*

EN 1514-7:2004, *Flanges and their joints — Gaskets for PN-designated flanges — Part 7: Covered metal jacketed gaskets for use with steel flanges*

EN 1514-8:2004, *Flanges and their joints — Dimensions of gaskets for PN-designated flanges — Part 8: Polymeric O-Ring gaskets for grooved flanges*

EN 12560-1:2001, *Flanges and their joints — Gaskets for Class-designated flanges — Part 1: Non-metallic flat gaskets with or without inserts*

EN 12560-2:2013, *Flanges and their joints — Dimensions of gaskets for Class-designated flanges — Part 2: Spiral wound gaskets for use with steel flanges*

EN 12560-3:2001, *Flanges and their joints — Gaskets for Class-designated flanges — Part 3: Non-metallic PTFE envelope gaskets*

EN 12560-4:2001, *Flanges and their joints — Gaskets for Class-designated flanges — Part 4: Corrugated, flat or grooved metallic and filled metallic gaskets for use with steel flanges*

EN 12560-5:2001, *Flanges and their joints — Gaskets for Class-designated flanges — Part 5: Metallic ring joint gaskets for use with steel flanges*

EN 12560-6:2003, *Flanges and their joints — Gaskets for Class-designated flanges — Part 6: Covered serrated metal gaskets for use with steel flanges*

EN 12560-7:2004, *Flanges and their joints — Gaskets for Class-designated flanges — Part 7: Covered metal jacketed gaskets for use with steel flanges*

3 Definitions

For the purposes of this document, the terms and definitions given in in the EN 1514 series and EN 12560 series apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

4 Structure of this document

This document is in three main sections that are to be found in Clause 5.

The first section deals with the quality assurance inspection and testing of gaskets to the requirements of the relevant standard in the EN 1514 series and EN 12560 series. 5.1 lists the clauses of the relevant standard(s). Beyond that some basic quality inspections are indicated where relevant.

The second section indicates the quality assurance testing or inspection that is appropriate for the separate materials which are combined without any mixing or processing other than slitting, cutting to shape or machining, to form the composite gaskets of the EN 1514 series and EN 12560 series. 5.2 lists the properties that are important and provides the test method and/or a reference to a proven test.

The third section indicates what simple functional testing can be carried out on each of the gasket types.

All of the tests included have been selected for their simplicity, many also have the advantage that the test equipment required is widely available in the relevant laboratories either in the laboratories of the gasket manufacturers or in commercial test houses.

5 Quality assurance tests and inspections

5.1 Quality assurance inspection and testing of gaskets as indicated in the relevant standard

5.1.1 General

In the following, the relevant clauses are simply listed with a brief description of the feature of the gasket or gasket material that is the subject of the inspection or test.