



SLOVENSKI STANDARD

oSIST prEN 14772:2019

01-november-2019

Prirobnice in prirobnični spoji - Nadzor zagotavljanja kakovosti in preskušanje tesnil, izdelanih skladno s standardi serije EN 1514 in EN 12560

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

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

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

Ta slovenski standard je istoveten z: prEN 14772

ICS:

23.040.60	Prirobnice, oglavki in spojni elementi	Flanges, couplings and joints
23.040.80	Tesnila za cevne zveze	Seals for pipe and hose assemblies

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Will supersede EN 14772:2005

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 draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 74.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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prEN 14772:2019 (E)

European foreword

This document (prEN 14772:2019) has been prepared by Technical Committee CEN/TC 74 “Flanges and their joints”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede 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”.

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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 <http://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.

5.1.2 Non-metallic flat gasket with or without inserts

The relevant standards are EN 1514-1:1997 and EN 12560-1:2001.

Subclause 8.1	Thickness
Subclause 8.2	Diameters
Subclause 8.3 (EN 12560-1:2001 only)	Tolerances
Clause 9 (EN 12560-1:2001) or 10 (EN 1514-1:1997)	Marking

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The gaskets should be inspected for freedom from surface blemishes and other such defects that are likely to influence their functionality.

The packaging of the gaskets should be sufficient to ensure that they are protected from damage during transit.

The current edition of the EN 1514-1:1997 does not contain tolerance information, this will be corrected when the standard is revised but meanwhile the tolerances of EN 12560-1 should be used.

5.1.3 Spiral wound gaskets

The relevant standards are EN 1514-2:2014 and EN 12560-2:2013.

For EN 12560-2:2013:

- Subclause 5.2 Materials
- Clause 6 Construction
- Clause 7 Gasket compression
- Clause 8 Gasket types
- Clause 9 Dimensions
- Subclause 10.1 Marking
- Subclause 10.2 Colour coding

For EN 1514-2:2014:

- Subclause 4.1 series Essential Features and Dimensions
- Subclause 4.4 Gasket Types

For gaskets to either series of standards:

The sealing face of the gaskets shall be in good condition and be free of damage.

The sealing material in the sealing element shall be free of contamination.

The inner ring, where specified, shall be securely fitted in the sealing element and the sealing element in to the guide ring. The degree of fit shall be as required by the relevant standard with rotation of one part relative to the others being satisfactory provide that the location of one in the other is secure where no particular guidance is given in the specification.

The packaging of the gaskets should be sufficient to ensure that they are protected from damage during transit.

5.1.4 Non-metallic PTFE envelope gaskets

The relevant standards are EN 1514-3:1997 and EN 12560-3:2001.

- Clause 7 Dimensions and Tolerances
- Clause 8 Marking

The packaging of the gaskets should be sufficient to ensure that they are protected from damage during transit.

The current edition of the EN 1514-3:1997 does not contain tolerance information, this will be corrected when the standard is revised but meanwhile the tolerances of EN 12560-3 should be used.