



NSAI
Standards

Irish Standard
I.S. EN 14772:2021

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

I.S. EN 14772:2021

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN 14772:2021

Published:

2021-01-20

This document was published under the authority of the NSAI and comes into effect on:

2021-02-07

ICS number:

23.040.60

23.040.80

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 14772:2021 is the adopted Irish version of the European Document EN 14772:2021, Flanges and their joints - Quality assurance inspection and testing of gaskets in accordance with the series of standards EN 1514 and EN 12560

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

EUROPEAN STANDARD

EN 14772

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2021

ICS 23.040.60; 23.040.80

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

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Definitions	7
4 Structure of this document	7
5 Quality assurance tests and inspections	7
5.1 Quality assurance inspection and testing of gaskets as indicated in the relevant standard	7
5.1.1 General	7
5.1.2 Non-metallic flat gasket with or without inserts	8
5.1.3 Spiral wound gaskets	8
5.1.4 Non-metallic PTFE envelope gaskets	9
5.1.5 Corrugated, flat or grooved metallic and filled metallic gaskets	9
5.1.6 Metallic ring type gaskets	9
5.1.7 Covered serrated metal gaskets	9
5.1.8 Covered jacketed gaskets	10
5.1.9 Polymeric “O” Ring Gaskets	10
5.2 Quality assurance tests that are relevant for the components of composite gaskets	10
5.2.1 General	10
5.2.2 Exfoliated graphite	11
5.2.3 PTFE (All forms)	11
5.2.4 Plate silicate	11
5.2.5 Millboard	11
5.2.6 Rubber bound, fibre reinforced, sheet material	11
5.2.7 Metal	12
5.3 Functional testing of the gaskets	12
5.3.1 General	12
5.3.2 Non-metallic flat gaskets with or without inserts	12
5.3.3 Spiral wound gaskets	12
5.3.4 Non-metallic PTFE envelope gaskets	12
5.3.5 Corrugated, flat or grooved metallic and filled metallic gaskets	12
5.3.6 Metallic ring type gaskets	12

5.3.7	Covered serrated metal gaskets.....	12
5.3.8	Covered jacketed gaskets	13
5.3.9	Polymeric “O” Ring Gaskets	13
6	Recommended test procedures.....	13
6.1	Thickness determination.....	13
6.2	Density/Weight per unit area determination	13
6.3	Ash content/Ignition loss determination	13
6.4	Compression and recovery determination	13
6.5	Chloride content determination	13
6.6	Sulphur content determination.....	14
6.7	Comparative graphite oxidation determination	14
6.7.1	Testing equipment	14
6.7.2	Sampling	14
6.7.3	Conditioning	14
6.7.4	Procedure of measurement	14
6.7.5	Evaluation.....	14
6.7.6	Safety Limits	15
6.8	Gas permeability determination.....	15
6.9	Stress retention determination.....	15
6.10	Hardness.....	16
7	Reporting.....	16
	Bibliography	17

EN 14772:2021 (E)

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.

EN 14772:2021 (E)**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*

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-