

SLOVENSKI STANDARD
oSIST prEN 15012:2014
01-julij-2014

**Cevni sistemi iz polimernih materialov - Podzemne in nadzemne cevne
komponente brez tlaka za odvodne sisteme v zgradbah - Zahteve in
preskusi/metode ocenjevanja za cevi in fitinge**

Plastics piping systems - Buried and above ground piping components for non pressure soil and waste discharge within the building structure - Requirements and test/assessment methods for pipes and fittings

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Kunststoff-Rohrleitungssysteme - Erdverlegte und nicht erdverlegte drucklose Rohrleitungsteile zum Ableiten von Abwasser innerhalb der Gebäudestruktur - Anforderungen und Prüf-/Bewertungsverfahren für Rohre und Formstücke

oSIST prEN 15012:2014

<https://standards.iteh.ai/catalog/standards/sist/d1dbe863-00ba-43ea-95c2->

Systems de canalisations en plastique - Composants de canalisations enterrées et aériennes pour l'évacuation des eaux-vannes et des eaux usées sans pression à l'intérieur de la structure des bâtiments - Exigences et méthodes d'essais/d'évaluation pour tubes et raccords

Ta slovenski standard je istoveten z: prEN 15012

ICS:

23.040.20	Cevi iz polimernih materialov	Plastics pipes
23.040.45	Fitingi iz polimernih materialov	Plastics fittings
91.140.80	Drenažni sistemi	Drainage systems

oSIST prEN 15012:2014

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[oSIST prEN 15012:2014](#)

<https://standards.iteh.ai/catalog/standards/sist/d1db863-00ba-43ea-95c2-536974b65d1f/osist-pren-15012-2014>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 15012

April 2014

ICS 23.040.01; 91.140.80

Will supersede EN 15012:2007

English Version

Plastics piping systems - Buried and above ground piping components for non pressure soil and waste discharge within the building structure - Requirements and test/assessment methods for pipes and fittings

Systèmes de canalisations en plastique - Composants de canalisations enterrées et aériennes pour l'évacuation des eaux-vannes et des eaux usées sans pression à l'intérieur de la structure des bâtiments - Exigences et méthodes d'essais/d'évaluation pour tubes et raccords

Kunststoff-Rohrleitungssysteme - Erdverlegte und nicht erdverlegte drucklose Rohrleitungsteile zum Ableiten von Abwasser innerhalb der Gebäudestruktur - Anforderungen und Prüf-/Bewertungsverfahren für Rohre und Formstücke

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 155.

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.

This draft European Standard was established by CEN 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms, definitions and abbreviations.....	7
3.1 Terms and definitions	7
3.2 Abbreviations	8
4 Product characteristics.....	8
4.1 Reaction to fire of pipes and fittings	8
4.2 Maximum load for admissible deformation of pipes and fittings (only relevant for buried in ground applications).....	8
4.3 Dimensional tolerances of pipes and fittings.....	9
4.4 Tightness: Gas and liquid.....	9
4.5 Release of dangerous substances of pipes and fittings	10
4.6 Durability	10
5 Test methods	11
5.1 Reaction to fire of pipes and fittings	11
5.2 Maximum load for admissible deformation (only relevant for buried in ground applications).....	11
5.3 Dimensional tolerances	11
5.4 Tightness: Gas and liquid.....	13
5.5 Release of dangerous substances of pipes and fittings	15
5.6 Durability	15
6 Assessment and verification of the constancy of performance (AVCP)	18
6.1 General.....	18
6.2 Type testing.....	18
6.3 Factory production control (FPC)	29
Annex ZA (informative) Clauses of this European Standard addressing the provisions of EU Construction Products Regulation	46
ZA.1 Scope and relevant characteristics	46
ZA.2 Procedure for AVCP of plastics pipes and fittings	48
ZA.3 CE marking and labelling.....	53
Bibliography.....	59

Foreword

This document (prEN 15012:2014) has been prepared by Technical Committee CEN/TC 155 “Plastics piping systems and ducting systems”, the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 15012:2007.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[oSIST prEN 15012:2014](https://standards.iteh.ai/catalog/standards/sist/d1db863-00ba-43ea-95c2-536974b65d1f/osist-pren-15012-2014)

<https://standards.iteh.ai/catalog/standards/sist/d1db863-00ba-43ea-95c2-536974b65d1f/osist-pren-15012-2014>

Introduction

This European Standard specifies only those characteristics of pipes and fittings for soil and waste applications inside buildings or buried in ground within the building structure, that need to be known to determine if the works in which these are to be installed can satisfy the essential requirements of the EU Directive(s). Additional characteristics are specified in the documents listed in clause 2 or in other appropriate product specifications.

This harmonised European Standard covers plastics pipes and fittings for non pressure soil and waste applications. Other components such as floor gullies and non return valves are covered by CEN/TC 165.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[oSIST prEN 15012:2014](https://standards.iteh.ai/catalog/standards/sist/d1db863-00ba-43ea-95c2-536974b65d1f/osist-pren-15012-2014)

<https://standards.iteh.ai/catalog/standards/sist/d1db863-00ba-43ea-95c2-536974b65d1f/osist-pren-15012-2014>

1 Scope

This European Standard specifies product characteristics for plastics pipes and fittings for non-pressure soil and waste applications.

Pipes and fittings covered by this standard are intended to be used in soil and waste discharge applications without pressure:

- inside the building (application area code "B"),
- buried in ground within the building structure (application area code "D") and with a diameter greater than or equal to 75 mm.

This standard gives the associated test/assessment methods.

This standard does not cover adhesives, joint sealings and gaskets.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 681-1, *Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 1: Vulcanised rubber*

EN 681-2, *Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 2: Thermoplastic elastomers*

EN 681-3, *Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 3: Cellular materials of vulcanised rubber*

EN 681-4, *Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications — Part 4: Cast polyurethane sealing elements*

EN 727:1994, *Plastics piping and ducting systems — Thermoplastics pipes and fittings — Determination of vicat softening temperature (VST)*

EN 728:1997, *Plastics piping and ducting systems — Polyolefin pipes and fittings — Determination of oxidation induction time*

EN 1053:1995, *Plastics piping systems — Thermoplastics piping systems for non-pressure applications — Test method for watertightness*

EN 1054:1995, *Plastics piping systems — Thermoplastics piping systems for soil and waste discharge — Test method for airtightness of joints*

EN 1055:1996, *Plastics piping systems — Thermoplastics piping systems for soil and waste discharge inside buildings — Test method for resistance to elevated temperature cycling*

EN 1277:2003, *Plastics piping systems — Thermoplastics piping systems for buried non-pressure applications — Test methods for leaktightness of elastomeric sealing ring type joints*

prEN 1329-1:2013, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Unplasticized poly(vinyl chloride) (PVC-U) — Part 1: Specifications for pipes, fittings and the system*

prEN 15012:2014 (E)

CEN/TS 1329-2:2012, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Unplasticized poly(vinyl chloride) (PVC-U) - Part 2: Guidance for the assessment of conformity*

EN 1451-1:1998, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Polypropylene (PP) — Part 1: Specifications for pipes, fittings and the system*

CEN/TS 1451-2:2012, *Plastic piping systems for soil and waste discharge (low and high temperature) within the building structure - Polypropylene (PP) - Part 2: Guidance for the assessment of conformity*

EN 1453-1:2000, *Plastics piping systems with structured wall-pipes for soil and waste discharge (low and high temperature) inside buildings — Unplasticized poly(vinyl chloride) (PVC-U) — Part 1: Specifications for pipes and the system*

ENV 1453-2:2000, *Plastics piping systems with structured wall pipes for soil and waste discharge (low and high temperature) inside buildings - Unplasticized poly(vinyl chloride) (PVC-U) - Part 2: Guidance for the assessment of conformity*

EN 1455-1:1999, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Acrylonitrile-butadiene-styrene (ABS) — Part 1: Requirements for pipes, fittings and the system*

CEN/TS 1455-2:2012, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Acrylonitrile-butadiene-styrene (ABS) - Part 2: Guidance for the assessment of conformity*

EN 1519-1:1999, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Polyethylene (PE) — Part 1: Specifications for pipes, fittings and the system*

CEN/TS 1519-2:2012, *Plastic piping systems for soil and waste discharge (low and high temperature) within the building structure - Polyethylen (PE) - Part 2: Guidance for the assessment of conformity*

EN 1565-1:1998, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Styrene copolymer blends (SAN+PVC) — Part 1: Specifications for pipes, fittings and the system*

CEN/TS 1565-2:2012, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Styrene-copolymer blends (SAN+PVC) - Part 2: Guidance for the assessment of conformity*

EN 1566-1:1998, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure — Chlorinated poly(vinyl chloride) (PVC-C) — Part 1: Specifications for pipes, fittings and the system*

CEN/TS 1566-2:2012, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Chlorinated poly(vinyl chloride) (PVC-C) - Part 2: Guidance for assessment of conformity*

EN 13501-1, *Fire classification of construction products and building elements — Part 1: Classification using test data from reaction to fire tests*

EN 13823, *Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item*

EN 16000, *Plastics piping systems — Systems within the building structure — Mounting and fixing of components in the test apparatus to thermal attack by a single burning item*

EN ISO 1167-2:2006, *Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 2: Preparation of pipe test pieces (ISO 1167-2:2006)*

EN ISO 3126, *Plastics piping systems — Plastics components — Determination of dimensions (ISO 3126:2005)*

EN ISO 9969, *Thermoplastics pipes — Determination of ring stiffness (ISO 9969:2007)*

EN ISO 13967, *Thermoplastics fittings — Determination of ring stiffness (ISO 13967:2009)*

ISO 1133:2011, *Plastics — Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics*

ISO 2507-2:1995, *Thermoplastics pipes and fittings -- Vicat softening temperature -- Part 2: Test conditions for unplasticized poly(vinyl chloride) (PVC-U) or chlorinated poly(vinyl chloride) (PVC-C) pipes and fittings and for high impact resistance poly(vinyl chloride) (PVC-HI) pipes*

ISO 13254:2010, *Thermoplastics piping systems for non-pressure applications -- Test method for watertightness*

ISO 13255:2010, *Thermoplastics piping systems for soil and waste discharge inside buildings -- Test method for airtightness of joints*

ISO 13257:2010, *Thermoplastics piping systems for non-pressure applications -- Test method for resistance to elevated temperature cycling*

ISO 13966, *Thermoplastics pipes and fittings — Nominal ring stiffnesses*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1.1

nominal size

DN

numerical designation of the size of a component, other than a component designated by thread size, which is a convenient round number approximately equal to the manufacturing dimension

Note 1 to entry: This can apply to either the internal diameter (DN/ID) or external diameter (DN/OD)

Note 2 to entry: The nominal size is expressed in millimetres (mm).

3.1.2

nominal outside diameter

d_n

specified outside diameter, in millimetres, assigned to a nominal size

prEN 15012:2014 (E)**3.1.3****nominal ring stiffness****SN**

numerical designation of the ring stiffness of a pipe or fitting, which is a convenient round number indicating the minimum required ring stiffness of the pipe or fitting

Note 1 to entry: It is designated by the letters "SN" followed by the appropriate number.

3.1.4**connection**

assembly of pipe(s) and fitting(s)

Note 1 to entry: For this standard, the term fitting includes the term joint.

3.2 Abbreviations

For the purposes of this document, the following abbreviations apply.

ABS:	acrylonitrile-butadiène-styrène
DN:	nominal size
PE:	polyethylene
PP:	polypropylene
PVC:	poly(vinyl chloride)
PVC-C:	chlorinated poly(vinyl chloride)
PVC-U:	unplasticized poly(vinyl chloride)
SAN + PVC:	styrene-acrylonitrile plastic + poly(vinyl chloride)
SN:	nominal ring stiffness
CWFT:	classified without further testing
FPC:	factory production control

4 Product characteristics**4.1 Reaction to fire of pipes and fittings**

The contribution to fire development of products falling under the scope of this European standard is verified according to the provisions of clause 5.1.

Test results shall be expressed by the classification.

4.2 Maximum load for admissible deformation of pipes and fittings (only relevant for buried in ground applications)**4.2.1 General**

This clause is only applicable for components intended to be used buried in ground within the building structure and with a nominal outside diameter greater than or equal to 75 mm.

NOTE The maximum load for admissible deformation is addressed as ring stiffness.

4.2.2 Ring stiffness of pipes

The ring stiffness of a thermoplastics pipe shall be determined in accordance with 5.2.1 and shall be expressed either:

- as SN 2, SN 4, SN 8 or SN 16 in accordance with ISO 13966, or,
- as the declared minimum value based on the test, expressed in kN/m^2 .

4.2.3 Ring stiffness of fittings

The ring stiffness of the body of thermoplastics fittings shall be expressed either:

- as SN 2, SN 4, SN 8 or SN 16 in accordance with ISO 13966, as applicable, or
- as the actual value obtained, expressed in kN/m^2 .

The ring stiffness of a fitting made from the same material and having the same wall thickness and design as the corresponding pipe may, because of the geometry, be considered to have the same stiffness as that of the associated pipe.

For thermoplastics fittings with structured wall, the ring stiffness of bends and branches with the largest side branch shall be determined in accordance with 5.2.2. Based on the obtained lowest value of the result other fittings of the same design family shall be classified with the same stiffness class.

4.3 Dimensional tolerances of pipes and fittings

Dimensional tolerances are assuring the proper functioning of the connections when installing the pipes and fittings.

Dimensions shall be measured according to 5.3. Results shall be within the declared tolerances given in the following standard, and expressed as a DN: <https://standards.iteh.ai/catalog/standards/sist/5d1f/osist-pren-15012-2014>

Where the pipes and fittings are not complying with the above criteria, the manufacturer shall declare its own values and associated connecting method, either by:

- reference to a specific publicly available product specification, or
- reference to an International Standard, or
- by stating the values of his own specification and associated connecting method.

4.4 Tightness: Gas and liquid

4.4.1 General

Pipes and fittings and connections between pipes and/or fittings intended for application inside buildings (application area code "B") shall comply with the requirements of 4.4.2.

Pipes and fittings and connections between pipes and/or fittings intended for application buried in ground within the building structure (application area code "D") shall comply with the requirements of 4.4.3.

4.4.2 Tightness of pipes and fittings intended for application inside buildings

Connections between pipes and/or fittings intended for application inside buildings shall be assembled according to the manufacturer's instructions and shall be tested against water and air leakage in accordance with 5.4.2.

prEN 15012:2014 (E)

No water leakage and no air leakage shall occur during the test. The result shall be expressed as : “no water leakage” and/or “no air leakage” accordingly.

4.4.3 Tightness of pipes and fittings intended for application buried in ground within the building structure

Sealing ring connections between pipes and/or fittings intended for application buried in ground within the building structure shall be assembled according to the manufacturer's instructions and shall be tested against water tightness under deformation and under angular deflection, in accordance with 5.4.3.

In order to enable the declaration of leak-tightness of sealing ring connections, the following applies:

- no water leakage may occur;
- the loss of partial vacuum shall not exceed 3 kPa (10 %).

The result shall be expressed as: “no leakage under deflection”.

NOTE Connection systems using adhesive bonding or fusion techniques are considered to be leak-tight when assembled in accordance with the manufacturer's instructions.

4.5 Release of dangerous substances of pipes and fittings

National regulations on dangerous substances may require verification and declaration on release, and sometimes content, when construction products covered by this standard are placed on those markets. In the absence of European harmonized test methods, verification and declaration on release/content should be done taking into account national provisions in the place of use.

NOTE An informative database covering European and national provisions on dangerous substances is available at the Construction web site on EUROPA accessed through: <http://ec.europa.eu/enterprise/construction/cpd-ds/>.

<https://standards.iteh.ai/catalog/standards/sist/d1dbe863-00ba-43ea-95c2-536974b65d1f/osist-pren-15012-2014>

4.6 Durability**4.6.1 General**

The durability of tightness of pipes and fittings and connections between pipes and/or fittings intended for application inside buildings (application area code "B") shall comply with the requirements of 4.6.2.

The durability of tightness of pipes and fittings and connections between pipes and/or fittings intended for application buried in ground within the building structure (application area code "D") shall comply with the requirements of 4.6.3.

4.6.2 Durability of tightness of pipes and fittings intended for application inside buildings

The durability of tightness of pipes and fittings intended for application inside buildings shall be assessed in accordance with 5.6.2 by testing the relevant material characteristic, using the test conditions and requirements given in table 5 and by testing the resistance of connections between pipes and/or fittings to temperature cycling using the test conditions and requirements given in table 6.

The durability of tightness shall be expressed as the application area code "B".

4.6.3 Durability of tightness of pipes and fittings intended for application buried in ground within the building structure

The durability of tightness of pipes and fittings intended for buried in ground within the building structure shall be assessed in accordance with 5.6.3 by testing the pressure resistance of material using the test conditions

and requirements given in table 7 and by testing the resistance of connections between pipes and/or fittings to temperature cycling, using the test conditions and requirements given in table 8.

The durability of tightness shall be expressed as the application area code "D".

5 Test methods

5.1 Reaction to fire of pipes and fittings

The reaction to fire is tested according to the test methods relevant for the claimed class.

When tested in accordance with EN 13823 (SBI test), the mounting and fixing conditions of the samples to be tested shall be in accordance with EN 16000.

Test results shall be classified according to EN 13501-1.

5.2 Maximum load for admissible deformation (only relevant for buried in ground applications)

5.2.1 Ring stiffness of thermoplastics pipes

For thermoplastics pipes the ring stiffness shall be determined in accordance with EN ISO 9969.

5.2.2 Ring stiffness of thermoplastics fittings

For thermoplastics structured-wall fabricated fittings, the ring stiffness of bends and branches shall be measured in accordance with EN ISO 13967.

5.3 Dimensional tolerances

The dimensional tolerances of pipes and fittings shall be determined in accordance with Table 1 or Table 2.

Table 1 — Dimensional tolerances of pipes

Material	Test parameters	Compliance criteria	Test method
ABS - metric series - inch series	EN 1455-1:1999 clause 6.2.1 Table 1 clause 6.2.1 Table 2	Clause 4.3	EN ISO 3126
PE - metric serie - inch series	EN 1519-1:1999, clause 6.2.1 Table 1 clause 6.2.1 Table 2	Clause 4.3	EN ISO 3126
PP - metric serie - inch series	EN 1451-1:1998, clause 6.2.1 Table 1 clause 6.2.1 Table 2	Clause 4.3	EN ISO 3126
PVC-C - metric series - inch series	EN 1566-1:1998, clause 6.2.1 Table 1 clause 6.2.1 Table 2	Clause 4.3	EN ISO 3126
PVC-U Compact - metric series - inch series	prEN 1329-1:2013, clause 6.2.1 Table 3 clause 6.2.1 Table 4	Clause 4.3	EN ISO 3126
PVC-U Structured Wall - metric series	EN 1453-1:2000, clause 6.2.1 Table 1	Clause 4.3	EN ISO 3126
SAN+PVC - metric series - inch series	EN 1565-1:1998, clause 6.2.1 Table 1 clause 6.2.1 Table 2	Clause 4.3	EN ISO 3126

<https://standards.iteh.ai/catalog/standards/sist/d1db863-00ba-43ea-95c2-536974b65d1f/osist-pren-15012-2014>
 oSIST prEN 15012:2014

Table 2 — Dimensional tolerances of fittings

Material	Test parameters	Compliance criteria	Test method
ABS - metric series - Adhesive fittings - Ring seal fittings - inch series - Adhesive fittings - Ring seal fittings	EN 1455-1:1999, clause 6.4.3 Table 11 clause 6.4.2.1 Table 5 or 6 or 8 clause 6.4.3 Table 12 clause 6.4.2.1 Table 7	Clause 4.3	EN ISO 3126
PE - metric series - Ring seal fittings - Electrofusion fittings - inch series - Ring seal fittings	EN 1519-1:1999, clause 6.4.1.1 Table 5 clause 6.4.2. Table 9 clause 6.4.1.1 Table 6	Clause 4.3	EN ISO 3126
PP - metric series - Ring seal fittings - Butt welded fittings - inch series - Ring seal fittings	EN 1451-1:1998, clause 6.4.1.1 Table 5 clause 6.4.2. clause 6.4.1.1 Table 6	Clause 4.3	EN ISO 3126
PVC-C - metric series - Ring seal fittings - Adhesive fittings - inch series - Ring seal fittings	EN 1566-1:1998, clause 6.4.2.1 Table 5 or 6 or 8 clause 6.4.2.2 Table 11 clause 6.4.2.1 Table 7	Clause 4.3	EN ISO 3126
PVC-U Compact - metric series - Adhesive fittings - Ring seal fittings - inch series - Adhesive fittings - Ring seal fittings	prEN 1329-1:2013, clause 6.4.1 Table 11 clause 6.4.2 Table 13 or 14 or 15 or clause 6.4.3 Table 17 clause 6.4.1 Table 12 clause 6.4.3 Table 16	Clause 4.3	EN ISO 3126
SAN+PVC - metric series - Ring seal fittings - Adhesive fittings - inch series - Ring seal fittings - Adhesive fittings	EN 1565-1:1998, clause 6.4.2.1 Table 5 or 7 clause 6.4.3.1 Table 10 clause 6.4.2.1 Table 6 clause 6.4.3 Table 11	Clause 4.3	EN ISO 3126

5.4 Tightness: Gas and liquid

5.4.1 General

Test methods for the assessment of tightness of pipes, fittings and connections between pipes and/or fittings are defined in clause 5.4.2 and 5.4.3, in relation to the intended use.