

Irish Standard I.S. EN ISO 10555-4:2013

Intravascular catheters - Sterile and single-use catheters - Part 4: Balloon dilatation catheters (ISO 10555-4:2013)

© CEN 2013

No copying without NSAI permission except as permitted by copyright law.

# I.S. EN ISO 10555-4:2013

Incorporating amendments/	corrigenda/National Anne.	xes issued since public	cation:
The National Standards Authori documents:	ty of Ireland (NSAI) produc	es the following cate	gories of formal
I.S. xxx: Irish Standard – r subject to public consultation.	national specification base	d on the consensus of	an expert panel and
S.R. xxx: Standard Recommender and subject to public cons	mendation - recommendat sultation.	ion based on the cons	ensus of an expert
SWiFT xxx: A rapidly develop participants of an NSAI worksho	ed recommendatory docui p.	ment based on the cor	nsensus of the
<i>This document replaces:</i> EN ISO 10555-4:1997			
This document is based on: EN ISO 10555-4:2013	<i>Published:</i> 18 July, 2013		
This document was publish under the authority of the N and comes into effect on: 18 July, 2013			ICS number: 11.040.25
<b>NSAI</b> 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	<b>Sales:</b> T +353 1 857 6730 F +353 1 857 6729 W standards.ie	
Údarás um Chaighdeáin Náisiúnta na hÉireann			

# EUROPEAN STANDARD NORME EUROPÉENNE

**EN ISO 10555-4** 

EUROPÄISCHE NORM

July 2013

ICS 11.040.25

Supersedes EN ISO 10555-4:1997

#### **English Version**

# Intravascular catheters - Sterile and single-use catheters - Part 4: Balloon dilatation catheters (ISO 10555-4:2013)

Cathéters intravasculaires - Cathéters stériles et non réutilisables - Partie 4: Cathéters de dilatation à ballonnets (ISO 10555-4:2013)

Intravaskuläre Katheter - Sterile Katheter zur einmaligen Verwendung - Teil 4: Ballondilatationskatheter (ISO 10555-4:2013)

This European Standard was approved by CEN on 29 May 2013.

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, 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.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

# EN ISO 10555-4:2013 (E)

Contents	Page
Foreword	3

EN ISO 10555-4:2013 (E)

# **Foreword**

This document (EN ISO 10555-4:2013) has been prepared by Technical Committee ISO/TC 84 "Devices for administration of medicinal products and intravascular catheters" in collaboration with Technical Committee CEN/TC 205 "Non-active medical devices" 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 January 2014, and conflicting national standards shall be withdrawn at the latest by January 2014.

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

This document supersedes EN ISO 10555-4:1997.

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.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: 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 the United Kingdom.

#### **Endorsement notice**

The text of ISO 10555-4:2013 has been approved by CEN as EN ISO 10555-4:2013 without any modification.

# Annex ZA (informative)

# Relationship between this European Standard and the Essential Requirements of EU Directive 93/42/EEC amended by Directive 2007/47/EEC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of Directive 93/42/EEC amended by Directive 2007/47/EEC.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive.

NOTE When an Essential Requirement does not appear in Table ZA.1, it means that it is not addressed by this European Standard.

Table ZA.1— Correspondence between this European Standard and Directive 93/42/EEC amended by Directive 2007/47/EEC

Essential Requirements (ERs) of Directive 93/42/EEC	Clause(s)/sub-clause(s) of this EN ISO 10555-4	
7.3	4.1	
	4.4	
7.5	4.1	
8.1	4.1	
8.3	4.1	
8.4	4.1	
9.1	4.1	
9.2	4.1	
	4.2	
	4.3	
	4.4	
12.7.1	4.1	
	4.4	
12.7.4	4.1	
12.8.1	4.1	
13.1	4.1	
	4.5 a)	
13.2	4.1	
13.3 a)	4.1	
13.3 b)	4.1	

# EN ISO 10555-4:2013 (E)

13.3 c)	4.1
13.3 d)	4.1
13.3 e)	4.1
13.3 f)	4.1
13.3 i)	4.1
13.3 j)	4.1
	4.5 b), c), d) and e)
13.3 k)	4.1
13.3 m)	4.1
13.4	4.1
13.6 a)	4.1
13.6 b)	4.1
	4.5 a), b) and c)
13.6 c)	4.1
13.6 e)	4.1
13.6 f)	4.1
13.6 g)	4.1
13.6 k)	4.1
13.6 l)	4.1
13.6 n)	4.1
13.6 q)	4.1

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

This is a free page sample. Access the full version online.

EN ISO 10555-4:2013

This page is intentionally left BLANK.

This is a free page sample. Access the full version online.

# EN ISO 10555-4:2013 INTERNATIONAL STANDARD

ISO 10555-4

Second edition 2013-06-15

# Intravascular catheters — Sterile and single-use catheters —

# Part 4: **Balloon dilatation catheters**

Cathéters intravasculaires — Cathéters stériles et non réutilisables — Partie 4: Cathéters de dilatation à ballonnets



ISO 10555-4:2013(E)



# COPYRIGHT PROTECTED DOCUMENT

© ISO 2013

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office Case postale 56 • CH-1211 Geneva 20 Tel. + 41 22 749 01 11 Fax + 41 22 749 09 47 E-mail copyright@iso.org Web www.iso.org

Published in Switzerland

# ISO 10555-4:2013(E)

Con	tent		Page
Forew	ord		iv
1	Scope		1
2		native references	
3	Term	s and definitions	1
4	Requ 4.1 4.2 4.3 4.4 4.5	irements General Radio-detectability Designation of nominal size Physical requirements Information to be supplied by the manufacturer	
Anne	<b>x A</b> (no	rmative) Test for balloon rated burst pressure (RBP)	3
Anne	<b>B</b> (no	rmative) Balloon fatigue test for freedom from leakage and damage on inflation	5
Anne	<b>c</b> C (no	rmative) <b>Test for balloon deflation time</b>	7
Anne	<b>v D</b> (no	rmative) Test for balloon diameter to inflation pressure	9
Anne	<b>E</b> (inf	ormative) Guidance on the selection of balloon materials	11
Biblio	graph	V	12

### ISO 10555-4:2013(E)

# **Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 10555-4 was prepared by Technical Committee ISO/TC 84, *Devices for administration of medicinal products and intravascular catheters*.

This second edition cancels and replaces the first edition (ISO 10555-4:1996), which has been technically revised. It also incorporates the Technical Corrigendum ISO 10555-4:1996/Cor 1:2002.

ISO 10555 consists of the following parts, under the general title *Intravascular catheters* — *Sterile and single-use catheters*:

- Part 1: General requirements
- Part 3: Central venous catheters
- Part 4: Balloon dilatation catheters
- Part 5: Over-needle peripheral catheters

The following part is under preparation:

Part 6: Subcutaneous implanted ports

The following part has been withdrawn and the content has been included in ISO 10555-1:

— Part 2: Angiographic catheters

Attention is drawn to ISO 11070, which specifies requirements for accessory devices for use with intravascular catheters, to ISO 25539-2 which specifies requirements for delivery systems if they comprise an integral component of the deployment of the vascular stent, and to ISO 14630.

# Intravascular catheters — Sterile and single-use catheters —

# Part 4:

# **Balloon dilatation catheters**

# 1 Scope

This part of ISO 10555 specifies requirements for balloon dilatation catheters supplied in the sterile condition, and intended for single use.

### 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.

ISO 594-1, Conical fittings with a 6 % (Luer) taper for syringes, needles and certain other medical equipment — Part 1: General requirements<sup>1)</sup>

ISO 594-2, Conical fittings with a 6 % (Luer) taper for syringes, needles and certain other medical equipment — Part 2: Lock fittings<sup>1</sup>)

ISO 10555-1, Intravascular catheters — Sterile and single-use catheters — Part 1: General requirements

# 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10555-1 and the following apply.

#### 3.1

# balloon dilatation catheter

intravascular catheter fitted with a balloon near the distal end, which is introduced into an artery or vein to dilate a part or parts of the vascular system

# 4 Requirements

### 4.1 General

Unless otherwise specified in this part of ISO 10555, balloon dilatation catheters shall comply with ISO 10555-1.

### 4.2 Radio-detectability

The position of the balloon shall be radio detectable when the catheter has been inserted into the body.

### 4.3 Designation of nominal size

The nominal size of the catheter shall be designated by the following:

a) diameter(s) expressed in millimetres of the inflated balloon(s) or, for multidiameter balloon(s), the diameter of each portion at recommended pressure;

<sup>1)</sup> Upon its publication, ISO 80369-7 will replace ISO 594-1 and ISO 594-2.



The is a new provider i arenade and chare publication at the limit below	This is a free preview.	Purchase the	entire publication	at the link below:
--	-------------------------	--------------	--------------------	--------------------

**Product Page** 

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation