

Primary packaging materials for medicinal products -
Particular requirements for the application of ISO
9001:2008, with reference to Good Manufacturing
Practice (GMP) (ISO 15378:2015)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 15378:2015 sisaldab Euroopa standardi EN ISO 15378:2015 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 15378:2015 consists of the English text of the European standard EN ISO 15378:2015.
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.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 04.11.2015.	Date of Availability of the European standard is 04.11.2015.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 03.120.10, 11.040.01

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:

Aru 10, 10317 Tallinn, Eesti; koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Aru 10, 10317 Tallinn, Estonia; homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

Primary packaging materials for medicinal products -
Particular requirements for the application of ISO
9001:2008, with reference to Good Manufacturing Practice
(GMP) (ISO 15378:2015)

Articles de conditionnement primaire pour
médicaments - Exigences particulières pour
l'application de l'ISO 9001:2008 prenant en
considération les Bonnes Pratiques de Fabrication
(BPF) (ISO 15378:2015)

Primärpackmittel für Arzneimittel - Besondere
Anforderungen für die Anwendung von ISO 9001:2008
entsprechend der Guten Herstellungspraxis (GMP)
(ISO 15378:2015)

This European Standard was approved by CEN on 3 October 2015.

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

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

European foreword

This document (EN ISO 15378:2015) has been prepared by Technical Committee ISO/TC 76 "Transfusion, infusion and injection, and blood processing equipment for medical and pharmaceutical use".

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 May 2016, and conflicting national standards shall be withdrawn at the latest by May 2016.

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 15378:2011.

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 15378:2015 has been approved by CEN as EN ISO 15378:2015 without any modification.

Contents

Page

Foreword.....	v
Introduction.....	vi
1 Scope.....	1
1.1 General.....	1
1.2 <i>Application</i>	2
2 Normative references.....	2
3 Terms and definitions.....	2
3.1 <i>Terms relating to quality</i>	3
3.2 <i>Terms relating to management</i>	3
3.3 <i>Terms relating to organization</i>	3
3.4 <i>Terms relating to processes and product</i>	4
3.5 <i>Terms relating to characteristics</i>	7
3.6 <i>Terms relating to conformity</i>	8
3.7 <i>Terms relating to documentation</i>	9
3.8 <i>Terms relating to examination</i>	9
3.9 <i>Terms relating to risk management</i>	11
4 Quality management system.....	12
4.1 General requirements.....	12
4.1.1 <i>Risk management</i>	13
4.2 Documentation requirements.....	14
4.2.1 General.....	14
4.2.2 Quality manual.....	15
4.2.3 Control of documents.....	15
4.2.4 Control of records.....	16
5 Management responsibility.....	17
5.1 Management commitment.....	17
5.2 Customer focus.....	17
5.2.1 <i>Customer audits</i>	17
5.3 Quality policy.....	17
5.4 Planning.....	18
5.4.1 Quality objectives.....	18
5.4.2 Quality management system planning.....	18
5.5 Responsibility, authority and communication.....	18
5.5.1 Responsibility and authority.....	18
5.5.2 Management representative.....	19
5.5.3 Internal communication.....	19
5.6 Management review.....	19
5.6.1 General.....	19
5.6.2 Review input.....	20
5.6.3 Review output.....	20
6 Resource management.....	20
6.1 Provision of resources.....	20
6.2 Human resources.....	21
6.2.1 General.....	21
6.2.2 Competence, training and awareness.....	21
6.3 Infrastructure.....	22
6.4 Work environment.....	22
6.4.1 <i>Work environment requirements</i>	22
6.4.2 <i>Classification of clean zones/cleanrooms</i>	23
6.4.3 <i>Risk control of contamination</i>	23
6.4.4 <i>Pest control</i>	23
6.4.5 <i>Materials and utilities (ancillary services)</i>	23

6.5	Maintenance and cleaning activities	24
7	Product realization	25
7.1	Planning of product realization	25
7.2	Customer-related processes	25
7.2.1	Determination of requirements related to the product	25
7.2.2	Review of requirements related to the product	26
7.2.3	Customer communication	26
7.3	Design and development	27
7.3.1	Design and development planning	27
7.3.2	Design and development inputs	28
7.3.3	Design and development outputs	28
7.3.4	Design and development review	28
7.3.5	Design and development verification	29
7.3.6	Design and development validation	29
7.3.7	Control of design and development changes	29
7.4	Purchasing	30
7.4.1	Purchasing process	30
7.4.2	Purchasing information	31
7.4.3	Verification of purchased product	31
7.5	Production and service provision	32
7.5.1	Control of production and service provision	32
7.5.2	Validation of processes for production and service provision	34
7.5.3	Identification and traceability	35
7.5.4	Customer property	36
7.5.5	Preservation of product	36
7.6	Control of monitoring and measuring equipment	37
8	Measurement, analysis and improvement	37
8.1	General	37
8.2	Monitoring and measurement	38
8.2.1	Customer satisfaction	38
8.2.2	Internal audit	38
8.2.3	Monitoring and measurement of processes	39
8.2.4	Monitoring and measurement of product	39
8.3	Control of nonconforming product	40
8.4	Analysis of data	41
8.5	Improvement	41
8.5.1	Continual improvement	41
8.5.2	Corrective action	42
8.5.3	Preventive action	42
	Annex A (normative) GMP requirements for printed primary packaging materials	43
	Annex B (informative) Guidance on verification, qualification and validation requirements for primary packaging materials	47
	Annex C (informative) Relationship between clauses of this International Standard and the high level structure	59
	Bibliography	62

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 76, *Transfusion, infusion and injection, and blood processing equipment for medical and pharmaceutical use*.

This third edition cancels and replaces the second edition (ISO 15378:2011), which has been technically revised to

- include requirements on risk management and replace the former guidance on risk management by references to relevant standards and guidelines,
- extensively revise the guidance on verification, qualification and validation requirements for primary packaging materials, and
- amend the requirements on infrastructure, work environment, maintenance and cleaning activities, customer communication, control of production and service provision and batch release.

Introduction

General

This International Standard identifies Good Manufacturing Practice (GMP) principles and specifies requirements for a quality management system applicable to primary packaging materials for medicinal products. The realization of GMP principles in production and control of primary packaging materials within organizations is of great importance for the safety of a patient using the medicinal product, because of their direct product contact. The application of GMP for pharmaceutical packaging materials helps ensure that these materials meet the needs and requirements of the pharmaceutical industry.

This International Standard is an application standard for primary packaging materials, which contains the normative text of ISO 9001:2008.

The following are the conventions for the layout of this International Standard.

- *Those clauses or subclauses that are quoted directly and unchanged from ISO 9001:2008 are in boxed text.*
- *Texts in italics contain additional relevant GMP information regarding primary packaging materials.*

GMP terms and definitions are included in [Clause 3](#). If listed, the source is referred to in brackets.

ISO 9001:2008, Quality management systems — Requirements

0.1 General

The adoption of a quality management system should be a strategic decision of an organization. The design and implementation of an organization's quality management system is influenced by

- a) its organizational environment, changes in that environment, and the risks associated with that environment,
- b) its varying needs,
- c) its particular objectives,
- d) the products it provides,
- e) the processes it employs,
- f) its size and organizational structure.

It is not the intent of this International Standard to imply uniformity in the structure of quality management systems or uniformity of documentation.

The quality management system requirements specified in this International Standard are complementary to requirements for products. Information marked "NOTE" is for guidance in understanding or clarifying the associated requirement.

This International Standard can be used by internal and external parties, including certification bodies, to assess the organization's ability to meet customer, statutory and regulatory requirements applicable to the product, and the organization's own requirements.

The quality management principles stated in ISO 9000 and ISO 9004 have been taken into consideration during the development of this International Standard.

A key objective of this International Standard is to define harmonized primary packaging material requirements. It includes some particular requirements for primary packaging materials, which are derived from Good Manufacturing Practices for the production, control, etc. of medicinal products.

Process approach

ISO 9001:2008, Quality management systems — Requirements

0.2 Process approach

This International Standard promotes the adoption of a process approach when developing, implementing and improving the effectiveness of a quality management system, to enhance customer satisfaction by meeting customer requirements.

For an organization to function effectively, it has to determine and manage numerous linked activities. An activity or set of activities using resources, and managed in order to enable the transformation of inputs into outputs, can be considered a process. Often the output from one process directly forms the input to the next.

The application of a system of processes within an organization, together with the identification and interactions of these processes, and their management to produce the desired outcome, can be referred to as the “process approach”.

An advantage of the process approach is the ongoing control that it provides over the linkage between the individual processes within the system of processes, as well as over their combination and interaction.

When used within a quality management system, such an approach emphasizes the importance of

- a) understanding and meeting requirements,
- b) the need to consider processes in terms of added value,
- c) obtaining results of process performance and effectiveness, and
- d) continual improvement of processes based on objective measurement.

The model of a process-based quality management system shown in [Figure 1](#) illustrates the process linkages presented in [Clauses 4](#) to [8](#). This illustration shows that customers play a significant role in defining requirements as inputs. Monitoring of customer satisfaction requires the evaluation of information relating to customer perception as to whether the organization has met the customer requirements. The model shown in [Figure 1](#) covers all the requirements of this International Standard, but does not show processes at a detailed level.

NOTE In addition, the methodology known as “Plan-Do-Check-Act” (PDCA) can be applied to all processes. PDCA can be briefly described as follows.

Plan: establish the objectives and processes necessary to deliver results in accordance with customer requirements and the organization’s policies.

Do: implement the processes.

Check: monitor and measure processes and product against policies, objectives and requirements for the product and report the results.

Act: take actions to continually improve process performance

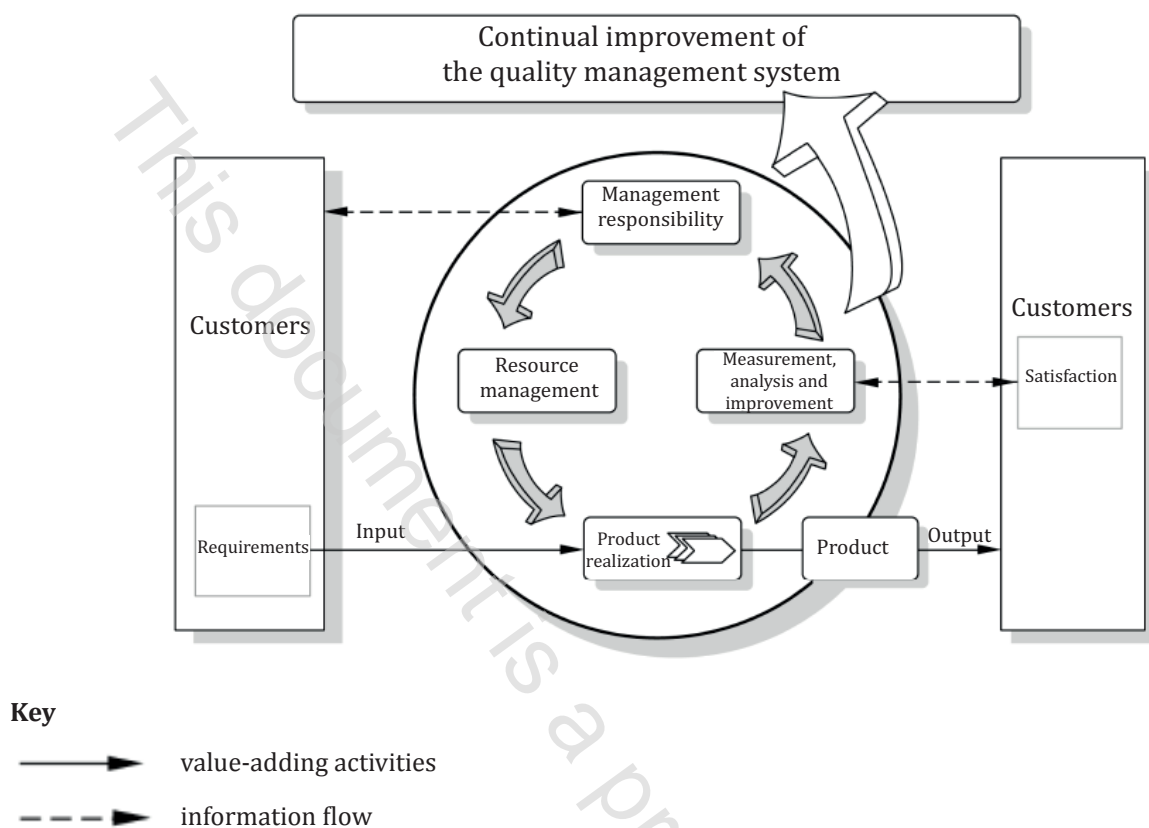


Figure 1 — Model of a process-based quality management system

Relationship with ISO 9004

ISO 9001:2008, Quality management systems — Requirements

0.3 Relationship with ISO 9004

ISO 9001 and ISO 9004 are quality management system standards which have been designed to complement each other, but can also be used independently.

ISO 9001 specifies requirements for a quality management system that can be used for internal application by organizations, or for certification, or for contractual purposes. It focuses on the effectiveness of the quality management system in meeting customer requirements.

At the time of publication of this International Standard, ISO 9004 is under revision. The revised edition of ISO 9004 will provide guidance to management for achieving sustained success for any organization in a complex, demanding, and ever changing, environment. ISO 9004 provides a wider focus on quality management than ISO 9001; it addresses the needs and expectations of all interested parties and their satisfaction, by the systematic and continual improvement of the organization's performance. However, it is not intended for certification, regulatory or contractual use.

Compatibility with other management systems

This International Standard incorporates the requirements of ISO 9001:2008 and, additionally, particular requirements for primary packaging materials, which are derived and adapted, as appropriate, from Good Manufacturing Practices for the production and control of medicinal products.

ISO 9001:2008, Quality management systems — Requirements

0.4 Compatibility with other management systems

During the development of this International Standard, due consideration was given to the provisions of ISO 14001:2004 to enhance the compatibility of the two standards for the benefit of the user community. Annex A shows the correspondence between ISO 9001:2008 and ISO 14001:2004.

This International Standard does not include requirements specific to other management systems, such as those particular to environmental management, occupational health and safety management, financial management or risk management. However, this International Standard enables an organization to align or integrate its own quality management system with related management system requirements. It is possible for an organization to adapt its existing management system(s) in order to establish a quality management system that complies with the requirements of this International Standard.

NOTE ISO 9001:2008, Annex A is not included in this International Standard.

Primary packaging materials for medicinal products — Particular requirements for the application of ISO 9001:2008, with reference to Good Manufacturing Practice (GMP)

1 Scope

1.1 General

This International Standard specifies requirements for a quality management system where an organization needs to demonstrate its ability to provide primary packaging materials for medicinal products, which consistently meet customer requirements, including regulatory requirements and International Standards applicable to primary packaging materials.

In this International Standard, the term “if appropriate” is used several times. When a requirement is qualified by this phrase, it is deemed to be “appropriate” unless the organization can document a justification otherwise.

ISO 9001:2008, Quality management systems — Requirements

1.1 General

This International Standard specifies requirements for a quality management system where an organization

- a) needs to demonstrate its ability to consistently provide product that meets customer and applicable statutory and regulatory requirements, and
- b) aims to enhance customer satisfaction through the effective application of the system, including processes for continual improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements.

NOTE 1 In this International Standard, the term “product” only applies to

- a) product intended for, or required by, a customer,
- b) any intended output resulting from the product realization processes.

NOTE 2 Statutory and regulatory requirements can be expressed as legal requirements.

1.2 Application

This International Standard is an application standard for the design, manufacture and supply of primary packaging materials for medicinal products. It is also applicable for certification purposes.

ISO 9001:2008, Quality management systems — Requirements

1.2 Application

All requirements of this International Standard are generic and are intended to be applicable to all organizations, regardless of type, size and product provided.

Where any requirement(s) of this International Standard cannot be applied due to the nature of an organization and its product, this can be considered for exclusion.

Where exclusions are made, claims of conformity to this International Standard are not acceptable unless these exclusions are limited to requirements within [Clause 7](#), and such exclusions do not affect the organization's ability, or responsibility, to provide product that meets customer and applicable statutory and regulatory requirements.

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 9001:2008, Quality management systems — Requirements

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 9000:2005, *Quality management systems — Fundamentals and vocabulary*

ISO 14698-1, *Cleanrooms and associated controlled environments — Biocontamination control — Part 1: General principles and methods*

ISO 14698-2, *Cleanrooms and associated controlled environments — Biocontamination control — Part 2: Evaluation and interpretation of biocontamination data*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 9000 and the following apply.

ISO 9001:2008, Quality management systems — Requirements

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 9000 apply.

Throughout the text of this International Standard, wherever the term “product” occurs, it can also mean “service”.

Additional terms and definitions used in this International Standard are specific to Good Manufacturing Practices applicable to the manufacture of primary packaging materials for medicinal products.¹⁾

¹⁾ The systematic used for the grouping of the terms and definitions in this International Standard is based on that used in ISO 9000.