

STN	Mikrobiológia potravinárskeho reťazca Horizontálna metóda na dôkaz a stanovenie počtu baktérií rodu <i>Campylobacter</i> Časť 2: Metóda stanovenia počtu počítaním kolónií (ISO 10272-2: 2017)	STN EN ISO 10272-2 56 0108
------------	---	--

Microbiology of the food chain - Horizontal method for detection and enumeration of *Campylobacter* spp. - Part 2: Colony-count technique (ISO 10272-2:2017)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/18

Obsahuje: EN ISO 10272-2:2017, ISO 10272-2:2017

Oznámením tejto normy sa ruší
STN P ISO/TS 10272-2 (56 0108) z augusta 2008

125533

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2018
Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnožovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.

EUROPEAN STANDARD

EN ISO 10272-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2017

ICS 07.100.30

English Version

**Microbiology of the food chain - Horizontal method for
detection and enumeration of *Campylobacter* spp. - Part 2:
Colony-count technique (ISO 10272-2:2017)**

Microbiologie de la chaîne alimentaire - Méthode
horizontale pour la recherche et le dénombrement de
Campylobacter spp. - Partie 2 : Technique par
comptage des colonies (ISO 10272-2:2017)

Mikrobiologie der Lebensmittelkette - Horizontales
Verfahren zum Nachweis und zur Zählung von
Campylobacter - Teil 2: Koloniezählverfahren (ISO
10272-2:2017)

This European Standard was approved by CEN on 1 May 2017.

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, 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: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 10272-2:2017) has been prepared by Technical Committee ISO/TC 34 “Food products” in collaboration with Technical Committee CEN/TC 275 “Food analysis - Horizontal methods” 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 2018 and conflicting national standards shall be withdrawn at the latest by January 2018.

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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 10272-2:2017 has been approved by CEN as EN ISO 10272-2:2017 without any modification.

INTERNATIONAL
STANDARD

ISO
10272-2

First edition
2017-06

**Microbiology of the food chain —
Horizontal method for detection and
enumeration of *Campylobacter* spp. —**

**Part 2:
Colony-count technique**

*Microbiologie de la chaîne alimentaire — Méthode horizontale pour
la recherche et le dénombrement de *Campylobacter* spp. —*

Partie 2: Technique par comptage des colonies



Reference number
ISO 10272-2:2017(E)

© ISO 2017

ISO 10272-2:2017(E)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

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
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	2
4.1 General.....	2
4.2 Preparation of dilutions.....	2
4.3 Enumeration.....	2
4.4 Confirmation.....	2
5 Culture media and reagents	2
6 Equipment and consumables	3
7 Sampling	3
8 Preparation of test sample	3
9 Procedure	4
9.1 Test portion, initial suspension and dilutions.....	4
9.2 Inoculation and incubation.....	4
9.3 Enumeration of characteristic colonies.....	4
9.4 Confirmation of <i>Campylobacter</i>	4
9.4.1 General.....	4
9.4.2 Selection of colonies for confirmation.....	5
9.4.3 Examination of morphology and motility.....	5
9.4.4 Study of aerobic growth at 25 °C.....	5
9.4.5 Detection of oxidase activity.....	5
9.4.6 Interpretation.....	5
9.5 Identification of <i>Campylobacter</i> species (optional).....	6
9.5.1 General.....	6
9.5.2 Detection of catalase activity.....	6
9.5.3 Detection of hippurate hydrolysis.....	6
9.5.4 Detection of indoxyl acetate hydrolysis.....	6
9.5.5 Interpretation.....	7
10 Expression of results	7
11 Performance characteristics of the method	7
11.1 Interlaboratory study.....	7
11.2 Repeatability limit.....	7
11.3 Reproducibility limit.....	8
12 Test report	9
Annex A (normative) Diagram of procedure	10
Annex B (normative) Culture media and reagents	11
Annex C (informative) Method validation studies and performance characteristics	16
Bibliography	19

ISO 10272-2:2017(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.

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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by the European Committee for Standardization (CEN), Technical Committee CEN/TC 275, *Food Analysis — Horizontal methods*, in collaboration with ISO Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 9, *Microbiology* in accordance with the agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition cancels and replaces ISO/TS 10272-2:2006, which has been technically revised with the following main changes:

- samples from the primary production stage have been added to the scope;
- serial dilutions are plated in single instead of in duplicate, to be in line with ISO 7218;
- the confirmation tests on study of microaerobic growth at 25 °C and aerobic growth at 41,5 °C were replaced by the study of aerobic growth at 25 °C;
- performance testing for the quality assurance of the culture media has been added to [Annex B](#);
- performance characteristics have been added to [Annex C](#).

A list of all parts in the ISO 10272 series can be found on the ISO website.

Introduction

The main changes, listed in the foreword, introduced in this document compared to ISO/TS 10272-2:2006 are considered as minor (see ISO 17468).

Because of the large variety of food and feed products, this horizontal method may not be appropriate in every detail for certain products, and for some other products, it may be necessary to use different methods. Nevertheless, it is hoped that in all cases, every attempt will be made to apply this horizontal method as far as possible and that deviations from this will only be made if absolutely necessary for technical reasons.

When this document is next reviewed, account will be taken of all information then available regarding the extent to which this horizontal method has been followed and the reasons for deviations from this in the case of particular products. The harmonization of test methods cannot be immediate and, for certain group of products, International Standards and/or national standards may already exist that do not comply with this horizontal method. It is hoped that when such standards are reviewed, they will be changed to comply with this document, so that eventually, the only remaining departures from this horizontal method will be those necessary for well-established technical reasons.

Microbiology of the food chain — Horizontal method for detection and enumeration of *Campylobacter* spp. —

Part 2: Colony-count technique

WARNING — In order to safeguard the health of laboratory personnel, it is essential that tests for enumeration of *Campylobacter* are only undertaken in properly equipped laboratories, under the control of a skilled microbiologist, and that great care is taken in the disposal of all incubated materials. Persons using this document should be familiar with normal laboratory practice. This document does not purport to address all of the safety aspects, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices.

1 Scope

This document specifies a horizontal method for the enumeration of *Campylobacter* spp. It is applicable to

- products intended for human consumption,
- products intended for animal feeding,
- environmental samples in the area of food and feed production, handling, and
- samples from the primary production stage such as animal faeces, dust, and swabs.

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.

ISO 6887 (all parts), *Microbiology of the food chain — Preparation of test samples, initial suspension and decimal dilutions for microbiological examination*

ISO 7218, *Microbiology of food and animal feeding stuffs — General requirements and guidance for microbiological examinations*

ISO 11133, *Microbiology of food, animal feed and water — Preparation, production, storage and performance testing of culture media*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN