



NSAI
Standards

Irish Standard
I.S. EN ISO 8586:2014

Sensory analysis - General guidelines for the selection, training and monitoring of selected assessors and expert sensory assessors (ISO 8586:2012, Corrected version 2014-06-15)

I.S. EN ISO 8586:2014

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 ISO 8586:2014

Published:

2014-01-15

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

2014-01-25

ICS number:

03.100.30
67.240

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

Correction Notice

Reference: [EN ISO 8586:2014](#)

Title: Sensory analysis - General guidelines for the selection, training and monitoring of selected assessors and expert sensory assessors (ISO 8586:2012, Corrected version 2014-06-15)

Work Item: CSC01052

Brussels, 2014-09-24

please include the following minor editorial correction(s) in the document related to:

the following language version(s) :

- English
- French
- German

for the following procedure :

- PQ/UQ
- Enquiry
- 2nd Enquiry
- Parallel Enquiry
- 2nd Parallel Enquiry
- Formal Vote
- 2nd Formal Vote
- Parallel Formal Vote
- 2nd Parallel Formal Vote
- UAP
- TC Approval
- 2nd TC Approval
- Publication
- Parallel Publication

It has been brought to our attention that this document, issued on 2014-01-15, requires modification.

ISO has issued a corrected English and French version on 2014-06-15.

Please find enclosed the updated English and French version.

We apologise for any inconvenience this may cause.

This page is intentionally left BLANK.

EUROPEAN STANDARD

EN ISO 8586

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2014

ICS 03.100.30; 67.240

Supersedes EN ISO 8586-2:2008

English Version

**Sensory analysis - General guidelines for the selection, training
and monitoring of selected assessors and expert sensory
assessors (ISO 8586:2012, Corrected version 2014-06-15)**

Analyse sensorielle - Lignes directrices générales pour la
sélection, l'entraînement et le contrôle des sujets qualifiés
et sujets sensoriels experts (ISO 8586:2012, Version
corrigée 2014-06-15)

Sensorische Analyse - Allgemeiner Leitfaden für die
Auswahl, Schulung und Überprüfung ausgewählter Prüfer
und Sensoriker (ISO 8586:2012, korrigierte Fassung 2014-
06-15)

This European Standard was approved by CEN on 28 December 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

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

EN ISO 8586:2014 (E)

Contents

	Page
Foreword	3

Foreword

The text of ISO 8586:2012, Corrected version 2014-06-15 has been prepared by Technical Committee ISO/TC 34 "Food products" of the International Organisation for Standardization (ISO) and has been taken over as EN ISO 8586:2014.

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 2014, and conflicting national standards shall be withdrawn at the latest by July 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 8586-2:2008.

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 8586:2012, Corrected version 2014-06-15 has been approved by CEN as EN ISO 8586:2014 without any modification.

This page is intentionally left blank

INTERNATIONAL STANDARD

**ISO
8586**

First edition
2012-12-15

Corrected version
2014-06-15

Sensory analysis — General guidelines for the selection, training and monitoring of selected assessors and expert sensory assessors

*Analyse sensorielle — Lignes directrices générales pour la sélection,
l'entraînement et le contrôle des sujets qualifiés et sujets sensoriels
experts*



Reference number
ISO 8586:2012(E)

© ISO 2012

ISO 8586:2012(E)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2012

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

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Selection of assessors	2
4.1 General	2
4.2 Recruitment, preliminary screening and initiation	2
4.3 Background information and preselection	5
4.4 Screening	7
5 Training of assessors	9
5.1 Principle	9
5.2 General	10
5.3 Assessment procedure	10
5.4 Training of colour, taste, odour and texture	10
5.5 Training in detection and recognition of special tastes and odours	15
5.6 Training in the use of scales	16
5.7 Training in the development and use of descriptors (profiles)	16
5.8 Practice	16
5.9 Specific product training	16
6 Final choice of panels for particular methods	17
6.1 Principle	17
6.2 Difference assessments	17
6.3 Ranking assessment	17
6.4 Rating and scoring	17
6.5 Qualitative descriptive analysis	18
6.6 Quantitative descriptive analysis	18
6.7 Assessors for particular assessments	18
7 Training of experts	19
7.1 General	19
7.2 Sensory memory	19
7.3 Semantic and metric learning of sensory descriptors	19
7.4 Building up a thesaurus of descriptors	19
7.5 Training on assessment conditions	19
8 Monitoring and testing of performance of selected assessors and expert sensory assessors	20
8.1 Objectives	20
8.2 Principle	20
8.3 Analysis of the results	20
9 Management and follow-up of the group	21
9.1 Motivation	21
9.2 Maintaining of skills	21
9.3 Renewal	21
9.4 Retraining	21
Annex A (informative) Repeatability and reproducibility of assessors and panels	22
Annex B (informative) Use of analysis of variance in the choice of selected assessors for scoring	23
Annex C (informative) Example of practical application	26
Bibliography	28

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 8586 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 12, *Sensory analysis*.

This first edition of ISO 8586 cancels and replaces ISO 8586-1:1993 and ISO 8586-2:2008. The main requirements and criteria for the selection, training and monitoring of selected assessors and of expert sensory assessors have been revised to summarize the information given in ISO 8586-1:1993 and ISO 8586-2:2008.

This corrected version of ISO 8586:2012 incorporates the following correction:

- in [Table B.3](#), third column, fourth line, the formula for calculation of S_7 has been corrected.

Introduction

A sensory analysis panel constitutes a true “measuring instrument”, and consequently the results of the analysis depends on its members.

The recruitment of persons willing to participate in a panel therefore needs to be carried out with care and to be considered as a real investment, both in time and money.

Sensory assessment can be performed by three types of assessors:

- sensory assessors;
- selected assessors;
- expert sensory assessors.

“Sensory assessors” are any people taking part in a sensory test. They can be “naive assessors” who do not have to meet any precise criterion, or “initiated assessors” who have already participated in sensory tests (see ISO 5492:2008, 1.5).

“Selected assessors” are chosen for their ability to perform a sensory test (see ISO 5492:2008, 1.6).

“Expert sensory assessors” are selected assessors with a demonstrated sensory sensitivity and with considerable training and experience in sensory testing, who are able to make consistent and repeatable sensory assessments of various products (see ISO 5492:2008, 1.8).

It is necessary to undertake a preliminary selection of the candidates at the recruitment stage, in order to eliminate those who would be unsuited for sensory analysis. However, the final selection can only be made after selection and training. The selection and training methods to be employed depend on the tasks to intend for the “selected assessors” and “expert sensory assessors”.

Sensory assessors work as a panel which is managed by a panel leader. In certain cases (especially for descriptive sensory analysis), the panel may be divided into specialized subgroups.

The recommended procedure involves:

- a) recruitment and preliminary screening of naive assessors;
- b) familiarization of naive assessors who are to become initiated assessors;
- c) selection of initiated assessors in order to determine their ability to perform particular tests, who then become selected assessors;
- d) possible training of selected assessors to become expert sensory assessors.

The exact procedures covered by a) and b) and the nature of the tests performed in c) and d) depend on the tasks intended for the panel.

Expert sensory assessors have demonstrated particular acuity and reproducibility in panel work, and have developed a good long-term sensory memory, allowing reliable comparative judgements, possibly in the absence of control samples.

The panel leader is responsible for the general monitoring of the group of expert sensory assessors and for their training. The expert sensory assessors are not responsible for the choice of tests used, the presentation of the samples or for the interpretation of results. These matters are the responsibility of the panel leader who also decides how much information is given to the panel.

The performance of selected assessors should be monitored regularly to ensure that the criteria by which they were initially selected continue to be met.

The entire process is illustrated in [Figure 1](#).

ISO 8586:2012(E)

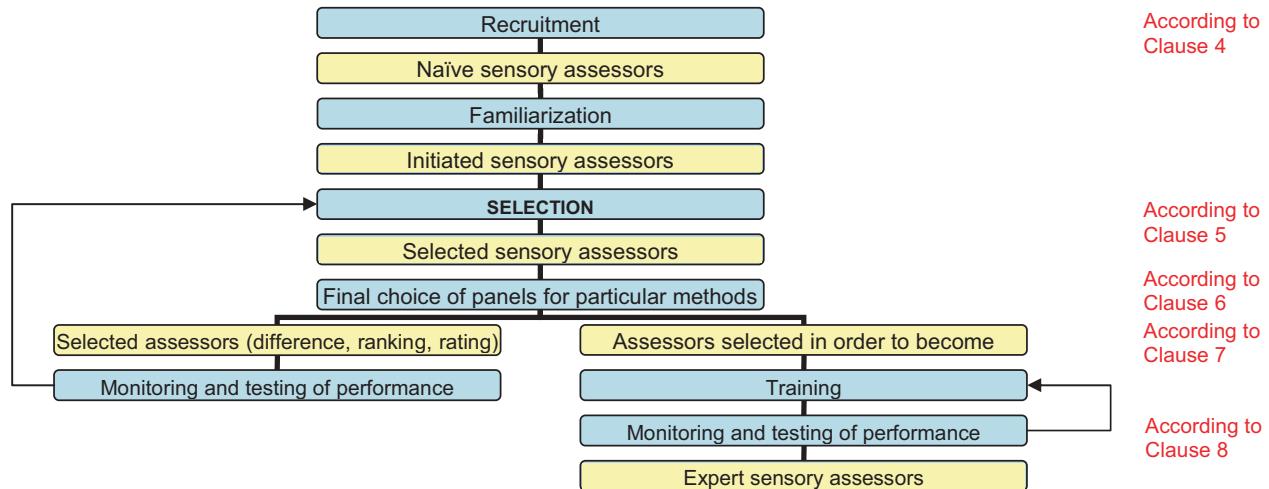


Figure 1 — Entire process

Sensory analysis — General guidelines for the selection, training and monitoring of selected assessors and expert sensory assessors

WARNING — This document does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

1 Scope

This International Standard specifies criteria for the selection and procedures for the training and monitoring of selected assessors and expert sensory assessors. It supplements the information given in ISO 6658.

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 5492:2008, *Sensory analysis — Vocabulary*

ISO 6658, *Sensory analysis — Methodology — General guidance*

ISO 8589, *Sensory analysis — General guidance for the design of test rooms*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5492 and the following apply.

3.1

repeatability

precision under repeatability conditions

Note 1 to entry: Repeatability can be expressed quantitatively in terms of the dispersion characteristics of the results.

[SOURCE: ISO 3534-2:2006, 3.3.5]

Note 2 to entry: Repeatability related to sensory analysis is defined as a measure of the agreement between assessments on the same sample under the same conditions. See [Table A.1](#).

3.2

repeatability conditions

observation conditions where independent test/measurement results are obtained with the same method on identical test/measurement items in the same test facility or measuring facility by the same operator using the same equipment within short intervals of time

Note 1 to entry: Repeatability conditions include:

- the same measurement procedure or test procedure;
- the same operator;
- the same measuring or test equipment used under the same conditions;



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