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Dostopnost nedigitalnih informacij, povezanih z izdelki in storitvami

Accessibility of non-digital information related to products and services

Barrierefreiheit von nicht-digitalen Informationen über Produkte und Dienstleistungen

Accessibilité des informations non numériques relatives aux produits et services

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Accessibility of non-digital information related to products and services

Accessibilité des informations non numériques relatives aux produits et services

Barrierefreiheit von nicht-digitalen Informationen über Produkte und Dienstleistungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/CLC/JTC 12.

If this draft becomes a European Standard, CEN and CENELEC 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.

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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.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.

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European foreword

This document (prEN 18339:2026) has been prepared by Technical Committee CEN/CLC JTC 12 “Design for ALL”, the secretariat of which is held by SIS.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this standard.

The European Accessibility Act (EAA), Directive (EU) 2019/882 continues the EU’s and the member states’ commitment to accessibility. Six harmonized standards have been requested from the European standardization organisations, CEN, CENELEC and ETSI. Together these standards cover the accessibility requirements of the EAA, in different aspects. The documents are interrelated and interdependent.

This document provides requirements for the accessibility of information presented in non-digital forms on and about the products and services defined in the EAA.

The five other standards are:

— Design for All approach Managing accessibility of products and services, EN 17161.

— Accessibility of the built environment, EN 17210.

— Accessibility requirements for ICT products and services, EN 301549.

— Accessibility of support services for products and services, EN 18340

— Accessibility and interoperability of emergency communications and (for) the answering of emergency communications by the public safety answering points (PSAPs) (including to the single European Emergency number 112). ETSI TS 103 919

0 Introduction

0.1 Information in non-digital forms

This document provides requirements, recommendations and guidance for how information on and about products and services is to be presented in accessible visual, auditory and tactile non-digital forms.

Information presented in non-digital forms is information communicated in one direction, and which cannot be changed or adapted by the user.

Examples of information presented in non-digital forms includes but is not limited to; visual labels, signs, posters and documents; auditory speech and acoustic signals, and tactile lettering, symbols and shapes.

NOTE 1 In this document the section related to spoken information presented in one direction, is for live speech, recorded speech, and speech transmitted as public announcements. Requirements for two-way voice communication for conversations can be found in EN 18340, “Accessibility of support services for products and services”.

NOTE 2 Information presented in non-digital forms is the result of a process that, in many cases, involves digital means, such as editing and printing an instruction manual or creating a synthesized spoken message for an announcement.

0.2 Presentation of accessible information

Information presented for use by more than one sensory channel is usable by a wider range of users.

Presenting information in visual, auditory and tactile forms can allow users to engage with it through the human sensory channels of seeing, hearing, and touch.

Information can be presented or made available in non-digital or digital forms.

Information presented in non-digital forms can indicate the availability of information provided in a digital form.

EXAMPLE A set of instructions can include a QR code that links the user to a website that hosts a digital copy of the same instructions.

Combinations of non-digital and digital forms can be used to present information for more than one sensory channel.

0.3 Types of information and products and services

The requirements and recommendations in this document are applicable to the presentation of the types of information listed in Clause 1, Scope.

This document could be used by organisations for a wide variety of purposes, including the presentation of information and other products and services.

This document focuses on information presented in non-digital forms on and about products and packaging related to:

a) consumer general purpose computer hardware systems;

b) self-service terminals (e.g. ticketing, banking machines, etc); and,

c) consumer terminal equipment (e.g. TVs, radios, hearing aids, etc).

This document focuses on information presented in non-digital forms related to:

d) electronic communications services;

e) providing access to audiovisual media services;

f) E-commerce services;

g) air, bus, rail and waterborne transport services; and,

h) consumer banking services.

0.4 Structure of requirements and guidance in this document

Table 1 below shows the high-level structure of the document and how requirements are grouped for presentation of information in visual, auditory and tactile forms. The forms for presentation are further grouped for perceivable and understandable and also for text and non-text content.

Table 1 — The structure of the normative requirements and informative guidance in this document.

Multiple Sensory Channels in Clause 4.2 and Annex B				
Testing the presentation of information in Clause 4.3 and Annex A				
Examples of information in non-digital and digital forms in Annex F				
Visual Clause 5		**Auditory** Clause 6		**Tactile** Clause 7
Perceivable text 5.1		Perceivable Spoken 6.2		Perceivable text 7.1.1
Perceivable non-text 5.3		Perceivable Signals 6.3		Perceivable non-text 7.1.2
Understandable text 5.4		Understandable Spoken 6.4		Understandable text 7.2.1
Understandable non-text 5.5		Understandable Signals 6.5		Understandable non-text 7.2.1
Annexes C and G - M		Annex D		Annex E
Annex ZA Relationship of this document to requirements of the EAA				

1 Scope

This document provides requirements for the presentation of information on and about products and services in visual, auditory and tactile non-digital forms for the sensory channels of seeing, hearing and touch.

The requirements in this document are applicable to:

- Information about the functioning of a service.
- Information about the accessibility of the products used in the provision of the service.
- Information on a product's functioning.
- Information on a product's accessibility features, elements, functions, and characteristics.
- Information on the use of the product (on the product itself).
- Instructions for use of a product (not on the product but provided through other means).
- Instructions of products (such as for installation, maintenance, storage and disposal of a product).
- Information provided on a package of a product.
- Information provided in a package of a product.
- Information about some types of transport services.
- Information about consumer banking services.

This document is intended for use by organisations that produce products and or provide services.

NOTE 1 This document can be used by organisations for a wide variety of purposes for the presentation of information.

This document does not apply to information permanently installed in and for the use of the built environment (for instance, signage, alarms and controls), which is covered by EN 17210.

NOTE 2 Where this document is referring to information on and about products and services used in the built environment, it pertains to those that can occur in it but are not a part of it.

This document does not apply to the presentation of information through a digital means by ICT products and services, (for instance displayed on a screen), which is covered by EN 301549.

NOTE 3 Where this document is referring to understandable content presented in non-digital forms, some of the associated requirements can be applicable to content presented in a digital form.

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.

EN IEC 60268-16:2020, *Sound system equipment - Part 16: Objective rating of speech intelligibility by speech transmission index*

prEN 18156:2025, *Tactile lettering - Requirements on the presentation and application of Braille and raised characters*

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp/

— IEC Electropedia: available at https://www.electropedia.org/

3.1
accessibility
extent to which products, systems, services, environments and facilities can be used by people from a population with the widest range of user needs, characteristics and capabilities to achieve identified goals in identified contexts of use

Note 1 to entry: Context of use includes direct use or use supported by assistive technologies.

[SOURCE: EN ISO 9241-112:2025, 3.11]

3.2
information
data that are processed, organized and correlated to produce meaning

[SOURCE: ISO 22320:2011, 3.9]

3.3
non-digital form
visual, auditory or tactile information communicated in one direction, which cannot be changed or adapted by the user

Note 1 to entry: Users as receivers of information presented in non-digital forms perceive the information by seeing, hearing or touching the content but are not able to adjust or make any changes to the presentation.

EXAMPLE Information in non-digital forms can include but are not limited to; visual labels, signs, posters and documents; auditory speech and acoustic signals, and tactile lettering, symbols and shapes.

3.4
perceive
recognise the existence of something

[SOURCE: ISO/IEC 29138-1:2018, 3.15]

3.5
acoustic notification
discrete, non-speech sound used to convey information or to cue subsequent speech announcements, produced or reproduced by a product or system and presented to the user as an audible signal

Note 1 to entry: It applies to notifications signals communicated in one direction, which cannot be changed or adapted by the user.

3.6
easy-to-understand language
any language variety which enhances comprehensibility

Note 1 to entry: Easy-to-understand language includes plain language, easy language and any intermediate variety. These varieties share many recommendations, but the extent of comprehensibility is different as they address different user needs.

[SOURCE: ISO/IEC 23859:2023, 3.1.1]

3.7
user
person who interacts with a system, product or service

Note 1 to entry: The person who uses a service provided by a system, such as a customer in a shop or passenger on a train, can be considered a user.

[SOURCE: ISO 27500:2016, 2.12]

3.8
context of use
combination of users, goals and tasks, resources, and environment.

Note 1 to entry: The “environment" in a context of use includes the technical, physical, social, cultural and organizational environments.

Note 2 to entry: context of use can also be known as conditions of use.

[SOURCE: ISO 9241-11:2018, 3.5, modified, Note 2 to entry added]

3.9
visual contrast
visual difference between one surface or component and a background or adjoining surface

Note 1 to entry: Visual contrast can be obtained by a combination of luminance contrast and colour contrast. Many people with impaired vision can rely only on luminance contrast, in this document accessibility is evaluated in terms of luminance contrast.

[SOURCE: ISO 21542:2021, 3.37 modified, “perception” changed to “difference”, and “two adjacent elements of a building” changed to “one surface or component and a background or adjoining surface” and in Note 1 to entry, changed “since” to “many”]

3.10
light reflectance value
LRV
proportion of visible light reflected by a surface at all wavelengths and directions when illuminated by a light source

Note 1 to entry: LRV is also known as the luminance reflectance factor.

Note 2 to entry: LRV is expressed on a scale of 0 to 100, with a value of 0 points for pure black and a value of 100 points for pure white.

[SOURCE: EN ISO 23599:2019, 3.14]

3.11
tactile lettering
information provided both in Braille or raised characters

[SOURCE: prEN 18156:2025, 3.7]

3.12
frequency partials
individual frequency components within a sound, comprising the fundamental frequency and any additional harmonic or inharmonic components that contribute to the sound's timbre

Note 1 to entry: Frequency determines the perceived pitch of a sound. Lower frequencies (e.g., 150 – 300 Hz) are perceived as lower-pitched sounds, while higher frequencies (e.g., 1 000 – 4 000 Hz) are perceived as higher-pitched sounds. Frequency also influences other perceptual attributes such as localisation and masking resistance.

Note 2 to entry: Harmonic and inharmonic partials together shape the timbre or texture of an acoustic notification and influence recognisability, distinctiveness, and perceptual clarity.

3.13
fundamental frequency
lowest frequency component of a sound and the primary determinant of its perceived pitch

Note to entry: The fundamental frequency forms the reference point for harmonic partials and may not always be the strongest (highest-energy) component in the spectrum, especially in complex or inharmonic signals.

3.14
overtones
frequency partials above the fundamental frequency, including both harmonic and inharmonic components

Note 1 to entry: Overtones may be integer multiples of the fundamental frequency. For example, for a fundamental frequency of 150 Hz, harmonic overtones may occur at 300 Hz, 450 Hz, 600 Hz, etc. Harmonic overtones are typically perceived as smooth or musically consonant, contributing to a stable and 'pleasant' timbre.

Note 2 to entry: Overtones may be non-integer multiples of the fundamental frequency (inharmonic overtones). For a 150 Hz fundamental, inharmonic partials may occur at frequencies such as 235 Hz or 512 Hz. Inharmonic overtones produce a rougher or more attention-grabbing timbre, which may be desirable for increasing noticeability in certain acoustic notifications.

3.15
x-height
height of lowercase letters, ignoring ascenders or descenders, such as x or z

[SOURCE: ISO Guide 41:2018, 3.22, modified, such as x or Z added, note to entry removed]

3.16
point
pt
smallest unit in typography and printing, used to measure font size, line thickness, and other layout dimensions

4 Requirements for information in accessible non-digital forms

4.1 General

Accessible information on and about products and services and their accessibility features can help to maximise their foreseeable use by the widest range of users including persons with disabilities.

The requirements for the presentation of information in non-digital forms may be relevant depending on the type of information, its content and context in which it is used.

EXAMPLE Some requirements applicable for the presentation of written instructions on how to use a product may also be applicable or relevant for the presentation of written instructions on how to open the package in which the product is contained.

4.2 Presentation of information for multiple sensory channels

4.2.1 Combinations of non-digital forms

Information made exclusively available in non-digital forms shall be made available for more than one sensory channel by:

a) Making non-digital visual information available in an auditory or tactile non-digital form.

b) Making non-digital auditory information available in a visual or tactile non-digital form.

c) Making non-digital tactile information available in a visual or auditory non-digital form.

4.2.2 Combinations of non-digital and digital

Information presented in a non-digital form can be made available via more than one sensory channel by also presenting the information in a digital form.

In such cases, the access to the accessible digital form shall be indicated by information available for more than one sensory channel.

EXAMPLE The use of an accessible QR codes can provide a link to information in accessible digital formats.

For examples of information presented in non-digital forms and information presented in digital form, see Annex F.

4.3 Testing the presentation of information

4.3.1 Testing the accessibility of information

Information presented in non-digital forms shall be evaluated in accordance with the requirements in this document.

4.3.2 Testing information accessibility

Key activities for testing information in non-digital forms:

— determine who are the intended users of the information;

— determine what information needs to be perceived;

— determine how the information needs to be understood, e.g. what the user needs to do or not do;

— determine which non-digital forms to present;

— confirm that the information is available for more than one sensory channel;

— identify the different elements in the information, such as. headings, instructions, signals;

— create a testing checklist comprising of each identified element and the applicable requirements from clauses 5 to 7;

— based on the checklist test each element against the applicable requirements;

— document if and how the information complies with the requirements; and,

— confirm that all the necessary information is presented in each of the forms.

For guidance on creating a testing checklist, see Annex A.

5 Visual non-digital form requirements

5.1 Perceivable visual text

5.1.1 General

The requirements for presenting visual written text content shall be taken into account together, where feasible, for maximising the foreseeable perception of the information within the available visual space.

For guidance on the application of visual text requirements in clause 5, see Annexes G to M.

For requirements regarding text placed on images see 5.3.1.

5.1.2 Font size

5.1.2.1 General

Font sizes are determined differently between hand-held viewing distances (40 cm) and where information needs to be perceivable at greater distances. The two methods are based on the requirements described in the following sections.

NOTE Increasing font size reduces the available space for line spacing and paragraph spacing.

For guidance about the impact of font size on information content accessibility, see Annex G.

For guidance about size measurements for font and text layout, see Annex H.

For guidance on testing font size, see Annex I.

5.1.2.2 Hand-held viewing distance font size

For hand-held viewing distances (40 cm), the text shall have:

a) An x-height of 2,6 mm or greater (equivalent to Arial 14 pt font of normal weight);

Where this cannot be achieved due to the available space, the x-height in millimetres should be reduced in proportion to the available space until the minimum is reached according to the following formula:

b) Minimum x-height of 1,3 mm (equivalent to Arial 7 pt font of normal weight).

Larger font sizes can be used to provide emphasis for example with headings or warnings. However, this should be used sparingly to make the best use of the available visual space.

For guidance about the impact of font size on information content accessibility, see Annex G.

For guidance about size measurements for font and text layout, see Annex H.

NOTE A font point size is not an absolute measure. For example, 14 pt Arial has a different x-height to 14 pt Times New Roman. See Annex L for how different fonts vary on point size to achieve the same x-height.

For guidance on application of requirements for font size, see Annex I.

5.1.2.3 Font sizes for viewing distances greater than the hand-held distance

For distances greater than the hand-held viewing distance (40 cm) the x-height shall be increased according to the following formula:

a) x-height in mm = viewing distance in metres multiplied by 6,5;

Alternatively, to calculate the equivalent size as the point size of an Arial font of normal weight, this can be calculated as follows:

b) Arial font size (in pt) = viewing distance in metres multiplied by 35;

Where this cannot be achieved due to the available space, the x-height in millimetres should be reduced in proportion to the available space until the minimum is reached according to the following formula:

c) The minimum x-height in mm = viewing distance in metres multiplied by 3,25; and,

Alternatively, to calculate the equivalent size as the point size of an Arial font of normal weight, this can be calculated as follows:

d) Arial font size (in pt) = viewing distance in metres multiplied by 17,5.

Larger font sizes can be used to provide emphasis for example with headings or warnings. However, this should be used sparingly to make the best use of the available visual space.

For guidance about size measurements for font and text layout, see Annex M.

NOTE A font point size is not an absolute measure. For example, 14 pt Arial has a different x-height to 14 pt Times New Roman. See Annex L for how different fonts vary with point size to achieve the same x-height.

5.1.3 Visual contrast

The absolute difference in light reflectance values (LRV) between foreground and background shall be at least 70 points, according to the formula:

Absolute difference in LRV = absolute (LRV foreground – LRV background).

For handheld distances, for text sizes greater than or equal to an x-height of 2,6 mm (equivalent to 14 point Arial), the absolute difference in LRV may be reduced, down to 60 points.

For text intended to be viewed at greater distances, the absolute difference in LRV may be reduced to 60 points when the ‘x-height in mm’ is greater than or equal to the value calculated according to the formula in 5.1.1.2 a.

For guidance on application of requirements for visual contrast, see Annex J.

5.1.4 Text placed on other content

5.1.4.1 Text shall not be set on top of images, other non-textual information or text, in a manner that reduces the perceptibility of the information or reduces visual contrast. or creates visual clutter that makes the content hard to find or understand in accordance with the relevant clauses in 5.4.2.10 and 5.5.1.