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English version

Accessibility and usability of the built environment - Technical performance criteria and specifications

Accessibilité et utilisabilité de l'environnement bâti -
Critères et spécifications de performance technique

Barrierefreiheit und Nutzbarkeit der gebauten
Umgebung - Technische Leistungskriterien und
Anforderungen

This Technical Report was approved by CEN on 23 May 2021. It has been drawn up by the Technical Committee CEN/CLC/JTC 11.

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European foreword

This document (CEN/TR 17621:2021) has been prepared by the Joint Technical Committee CEN-CENELEC/JTC 11 "Accessibility in the built environment", the secretariat of which is held by UNE.

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

This document has been prepared under Mandate M/420 given to CEN, CENELEC and ETSI by the European Commission and the European Free Trade Association in support of European accessibility requirements for public procurement in the built environment.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN and CENELEC websites.

Introduction

This document exemplifies the technical performance criteria and specifications to fulfil the functional requirements given in the European Standard EN 17210. It demonstrates a proposal, or proposals, to achieve the EN requirements and recommendations, drawing on performance criteria and specifications given in International Standard ISO 21542, where these exist and/or with examples from other standards and guidance documents, where relevant.

Alternatively, national standards or regulations may be used to determine the technical performance criteria and specifications to fulfil the functional requirements of the EN 17210.

Another CEN-CENELEC Technical Report (CEN/TR 17622) will detail the assessment of conformity to the functional requirements given in the European Standard EN 17210.

This document is intended to be read alongside EN 17210. The structure in CEN/TR 17621 follows the EN structure, listing the equivalent headings, clauses and bullet points (a), b), c) etc.) and providing a way, or ways, to achieve the functional requirements and recommendations.

Where there are no technical criteria related to the EN clause / sub-clause, such as the Rationale, this is stated rather than leaving this blank.

Technical performance criteria and specifications from ISO 21542:2011 are used in the CEN/TR 17621 as the main source of information, and this is not referenced as the source each time, as this would be repetitive. When the source is ISO 21542:2021 (Enquiry version) we include this source in brackets, and other sources are also referenced.

Other sources are used where these have been identified as providing information not covered in ISO 21542 or useful supplementary information.

Additional sources include:

- EN 16584-1, *Railway applications – Design for PRM use – General requirements – Part 1: Contrast*,
- EN 16584-2, *Railway applications – Design for PRM use – General requirements – Part 2: Information*.
- EN 16584-3, *Railway applications – Design for PRM use – General requirements – Part 3: Optical and friction characters*.
- EN 16587, *Railway applications – Design for PRM use – Requirements for obstacle free routes for infrastructure*,
- Other specific ENs and product related ENs,
- National standards,
- Guidance on a specific matter.

See also the Bibliography.

1 Scope

This document has been developed to support EN 17210, "Accessibility and usability of the built environment – Functional requirements". This document provides and exemplifies technical performance criteria and specifications for an accessible and usable built environment, following the Design for All/Universal design principles. The document specifies what is necessary to align with these principles which will facilitate equitable and safe use for a wide range of users.

The technical performance criteria and specifications are applicable across the full spectrum of the built environment and can be used as criteria for awarding public contracts (in support of the Public Procurement Directives).

These technical performance criteria and specifications are specifically applicable to the design, construction, refurbishment or adaptation, and maintenance of public or public-use environments including external areas.

Alternatively, national standards and regulations can determine the technical performance criteria and specifications to fulfil the functional requirements of EN 17210.

NOTE 1 Design for All and Universal Design share a similar inclusive design philosophy. Universal Design means the design of products, environments, programmes and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. Universal Design does not exclude assistive devices for particular groups of persons with disabilities where this is needed (UN CRPD).

NOTE 2 Terms such as "design for all", "universal design", "accessible design", "barrier-free design", "inclusive design" and "transgenerational design" are often used interchangeably with the same meaning.

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 17210, *Accessibility and usability of the built environment - Functional requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 17210 and the following apply:

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

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 or CIE Y value (see International Commission on Illumination, CIE, Publication 15:2004, 3rd Edition, *Colorimetry*).

Note 2 to entry: The *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: ISO 21542:2011, definition 3.41]