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Conservation of cultural heritage – Guidelines for design of showcases for exhibition and preservation of objects – Part 1: General requirements

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EUROPEAN STANDARD

EN 15999-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2014

ICS 97.195

English Version

Conservation of cultural heritage - Guidelines for design of showcases for exhibition and preservation of objects - Part 1: General requirements

Conservation des biens culturels - Guide pour la gestion des conditions environnementales - Recommandations pour les vitrines destinées à exposer et préserver des biens culturels - Partie 1: Exigences générales

Erhaltung des kulturellen Erbes - Leitfaden für die Konstruktion von Schauvittrinen zur Ausstellung und Erhaltung von Objekten - Teil 1: Allgemeine Anforderungen

This European Standard was approved by CEN on 4 January 2014.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 15999-1:2014) has been prepared by Technical Committee CEN/TC 346 “Conservation of Cultural Heritage”, the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by September 2014, and conflicting national standards shall be withdrawn at the latest by September 2014.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.

EN 15999, *Conservation of cultural heritage - Guidelines for design of showcases for exhibition and preservation of objects*, consists of the following parts:

- *Part 1: General requirements;*
- *Part 2: Technical requirements.*

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Introduction

The main purpose of a showcase is to reduce the risk of physical damage (e.g. theft, vandalism, natural disasters) and to improve the control of environmental parameters (relative humidity, air temperature, dust, pollutants and light) to cultural heritage objects.

Better knowledge of the material properties of cultural heritage objects and their interaction with the environment is leading to better preservation. In light of this new knowledge, and in order to prevent risk of decay related to the exhibitions, the showcase is a useful tool to preserve and protect objects.

With increasing development of cultural tourism, the number of exhibitions and visitors are likely to continue to grow and place greater burdens on cultural heritage objects.

The complexity and the number of variables and their possible incidence require the use of a showcase, adapted to the object and the environment where the showcase is situated. A badly constructed or selected showcase can in some circumstances make conditions worse for the object.

The design of showcases need to take account of the shared views of all relevant members of an exhibition team, including for example curators, conservators, scientists, architects, graphic designers, lighting experts and other decision makers.

This European Standard will consist of the following parts:

- *Conservation of cultural heritage — Guidelines for design of showcases for exhibition and preservation of objects — Part 1: General instructions*
- *Conservation of cultural heritage — Guidelines for design of showcases for exhibition and preservation of objects — Part 2: Technical aspects*

1 Scope

This European Standard specifies the characteristics and the conditions for use of showcases for safe and secure display of cultural heritage objects, reducing environmental interaction and complying with the requirements for better preservation.

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.

EN 15898:2011, *Conservation of cultural property - Main general terms and definitions*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15898:2011 and the following apply.

3.1

accessibility

physical capability of intervention in a showcase for such purposes as handling of an object, technical intervention and maintenance

3.2

air exchange

airflow through gaps and small openings of the display space to the outside of the closed showcase

3.3

buffer

material, which resists change of relative humidity, acidity, or pollutants concentration by absorbing or desorbing vapours, gases or ions

3.4

display space

space in the showcase where the objects are displayed and which may contain other elements such as panels, supports, graphics, monitoring equipment etc

3.5

indoor climate

description of climate inside the building relevant to the preservation of an object or to human comfort

3.6

microclimate

climate in the display space of the showcase

3.7

mounting

system to allow an object to be supported or fixed

3.8

pollutants

gaseous or particulate chemical contaminants induced into the environment, which can generate corrosion, incrustation, colour fading, soiling, deterioration or other forms of damage to the object on display

3.9 safety
pertaining to human health, in the context of enclosures, ensuring they are physically stable and cannot topple, have safety glass that cannot be broken easily, do not generate atmospheres within them that are hazardous to health during usage or similar

3.10 security
protection against theft and physical damage

3.11 showcase
enclosure of any dimension, designed to preserve and display objects in specific safe and secure conditions

Note 1 to entry: The term “display case” is sometimes used as a synonym.

3.12 support
construction, material or device to hold and support an object without interference or damage and designed to provide stability to an object

4 Principles and components of a showcase

4.1 Functions of the showcase

The fundamental functions of a showcase are:

- a) to display an object,
- b) to protect an object,
- c) to ensure preservation and minimize damage to and deterioration of an object.

4.2 Criteria for design or selection of a showcase

The design, the adaptation or the choice of a showcase shall be determined by the nature of the objects, the characteristics of the exhibition area and by the need of showing an object in safe and secure conditions, while at the same time providing the conditions needed for the preservation of the object. Furthermore, it shall conform to relevant national health and safety regulations.

It is necessary to take into account:

- a) the characteristics of the object:
 - 1) dimensions (height, width, depth) and weight,
 - 2) physical, chemical, and structural nature,
 - 3) brittleness and sensitivity in relation to its past material history,
 - 4) monetary value and the attractiveness of the object for thieves;
- b) management policies for collections and objects:
 - 1) frequency of turnover or rotation of objects between storage and display,
 - 2) duration of exhibition,

- 3) handling of objects,
- 4) maintenance of the showcase and emergency planning;
- c) maintenance and interior cleaning of the showcase as this shall be safe and easy to carry out without danger to the objects;
- d) placement of the object in the context of the exhibition;
- e) the design and display requirements, including aesthetic considerations relevant to the appearance and the viewers' perceptions of the content;
- f) the showcase and the public in relation to stability, safety, security, sufficient space for circulation, lighting;
- g) environmental characteristics of the area, where the showcase will be located:
 - 1) room,
 - 2) building,
 - 3) geographical environment (e.g. vibrations from traffic, seismic activity, flooding);
- h) the placing or removal of the object observing security and without risk to the object itself, nearby objects or the staff;
- i) sustainability:
 - 1) the future use of the showcase, including its usability for other displays, whether complete or by using its components,
 - 2) the carbon footprint of its materials and production processes,
 - 3) the suitability of systems and components for maintaining the required environmental criteria (e.g. use of fans or other air conditioning devices or the re-conditioning of buffer materials).

4.3 Components of the showcase

4.3.1 General

A showcase normally consists of:

- a) a display space for the objects, including security devices,
- b) technical compartments with devices for control of environmental factors (lighting, microclimate, pollutants, etc.), and security devices,
- c) a base or mounting of the showcase to ensure stability,
- d) lining of the display space and supports for the object.

4.3.2 Display space

The display space presenting the object is surrounded by walls, of which at least one (minimum) is transparent.