



SLOVENSKI STANDARD
oSIST prEN 15999-1:2012
01-oktober-2012

**Ohranjanje kulturne dediščine - Smernice za upravljanje okoljskih pogojev -
Priporočila za vitrine za razstavljanje in hranjenje kulturnih dobrin - 1. del: Splošne
zahteve**

Conservation of cultural heritage - Guidelines for management of environmental conditions - Recommendations for showcases used for exhibition and preservation of cultural property - Part 1: General requirements

Erhaltung des kulturellen Erbes - Leitfaden für das Management von Umgebungsbedingungen - Empfehlungen für Schauvitri-
nen zur Ausstellung und Erhaltung von kulturellem Erbe - Teil 1: Allgemeine Anforderungen

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

Ta slovenski standard je istoveten z: prEN 15999-1

ICS:

97.195 Umetniški in obrtniški izdelki Items of art and handicrafts

oSIST prEN 15999-1:2012

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 15999-1

June 2012

ICS 97.195

English Version

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of environmental conditions - Recommendations for showcases
used for exhibition and preservation of cultural property - Part 1:
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Management von Umgebungsbedingungen -
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Erhaltung von kulturellem Erbe - Teil 1: Allgemeine
Anforderungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 346.

If this draft becomes a European Standard, 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.

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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.

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COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (prEN 15999-1:2012) has been prepared by Technical Committee CEN/TC 346 “Conservation of cultural heritage”, the secretariat of which is held by UNI.

This document is currently submitted to the CEN Enquiry.

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

iTeh STANDARD PREVIEW
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SIST EN 15999-1:2014

<https://standards.iteh.ai/catalog/standards/sist/55e8c968-ab93-4bbc-97c1-fc61e376c622/sist-en-15999-1-2014>

Introduction

Better material knowledge of cultural property objects and their interaction with the environment result in better preservation. With increasing development of cultural tourism, the number of exhibitions and visitors are likely to continue to grow in the future.

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.

The showcase is a transparent container built and used to protect cultural property objects on display.

The main goal of a showcase is the improved control of the environmental parameters (relative humidity, air temperature, dust, pollutants and light) and the risk of physical damage (e.g. theft, vandalism, natural disasters).

The complexity and the number of parameters and their possible incidence require the use of a showcase, adapted to the cultural property objects on display and the place where the showcase is placed.

This document concerns all those in charge of the preservation and exhibition of cultural property objects or in charge of designing, making or fitting out showcases. An appropriately qualified person (usually a curator, conservator or conservation scientist) should be involved in the decision making process before design or construction of the showcase is undertaken.

This standard will consist of:

- PART 1: General requirements.
- PART 2: Technical aspects (e.g. materials used for the showcase, control of showcase microclimate, air exchange, lighting, and safety and security systems).

1 Scope

This document defines the characteristics and the conditions for use of showcases for the exhibition of cultural property, reducing environmental interaction and complying with the requirements for better preservation in order to improve visibility and ensure its safety and security.

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.

prEN 16163:2011, *Conservation of cultural property – Exhibition lighting of cultural property*

3 Terms and definitions

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

3.1

absorption

physical/chemical process that occurs when a gas or liquid solute diffuses into a solid to form a solution or is transported and kept into the volume by capillary forces

3.2

accessibility

physical capability of intervention in a showcase: handling of an object, technical intervention, and maintenance

3.3

adsorption

physical/chemical process that occurs when a gas or liquid solute accumulates on the surface of a solid (adsorbent), forming a molecular or atomic film (the adsorbate)

3.4

airtight

enclosure that resists air ingress or regress

3.5

buffer

material, which resists change of relative humidity, acidity, temperature, or pollutants concentration by adsorbing/absorbing or desorbing vapours, gases, ions, performing heat exchange

3.6

display place

space in which the cultural property objects are displayed and may contain others elements such as panels, supports, graphics, monitoring equipment...

3.7

indoor climate

description of climatic variables inside the building related to the preservation of a cultural property object or human comfort

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- 3.8
microclimate**
climate on a small spatial scale
- 3.9
mounting**
system to allow an object to be supported or fixed
- 3.10
pollutants**
gaseous or particulate chemical contaminants introduced in the environment and in the specific case of cultural property objects, can generate corrosion, incrustation, colour fading, soiling, deterioration or other form of decay
- 3.11
safety**
pertaining to human health, in the context of enclosures; ensuring they are stable and cannot topple, have glass that cannot be broken easily, do not generate atmospheres within them that are hazardous to health during usage
- 3.12
security**
protection against theft and physical damage
- 3.13
showcase or display case**
closed container of any dimension, designed to preserve and display objects in safe and secure conditions
- 3.14
support**
device to hold and support an object without interference or damage, designed to provide stability

4 Principles and components of a showcase for the display of objects**4.1 Functions of the showcase**

The fundamental functions of a showcase are:

- a) to display an object while protecting it;
- b) to prevent and minimize any kind of adverse effects to the objects;
- c) to ensure culture property object preservation, safety and security.

4.2 Criteria of design or choice of the showcase

The design, the adaptation or the choice of a showcase shall be determined by the nature of the objects and their role in the exhibition, and by the aim of showing an object in conditions of safety and security, and at the same time providing the best conditions needed for the object preservation. It shall conform to relevant national health and safety rules, standards or regulations of public institutions.

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 history;
 - 4) monetary value, vulnerability to theft.
- b) management of culture property collection or objects of the institution: objects' turnover, exhibition duration, handling of objects, maintenance of the showcase, emergency plan;
 - c) maintenance and interior cleaning of the showcase: it 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 showcase and the public: stability, safety, security, sufficient space for circulation, lighting;
 - f) environmental characteristics of the area where the showcase will be located:
 - 1) room;
 - 2) building;
 - 3) geographical environment (e.g. seismic region, flooding).
 - g) the placing or removal of the object observing security and without risk to the object itself or to other objects in the case of the personal.

4.3 Components of the showcase

A showcase normally consists of:

- a) a display space for the objects;
- b) a technical compartments with devices for lighting, microclimate, pollutants;
- c) supports;
- d) a base or mounting to ensure stability.

4.3.1 Display space

The display space contains and presents the objects and normally consists of minimum one viewing panel of glass or acrylic.

Construction shall be made with low emission materials. The materials for the display space shall be carefully selected and be appropriate with the nature of the objects (see 4.5.1).

Its dimensions take into account the size of the objects, their preservation needs, props, supports and mountings, the accessibility and any element of the exhibition context.

The contact between the leaf, or door or opening panel, and the frame maintains an appropriate seal.

The opening allows sufficient access to the display space for safe handling of culture property objects and maintenance of the display space. The showcase shall remain stable during opening and when it is fully opened.

It allows the installation of sensors/devices to monitor or control the internal environmental factors and facilitate the collection of data.

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Display spaces need to be locked.

4.3.2 Technical compartments

The technical compartments are defined as the part of the showcase, where required, devices dedicated to climate, lighting control, alarm system are located for the preservation and the display of the objects.

The technical compartment shall for risk or aesthetic reasons devices be isolated from the display case and the objects.

The technical compartment shall be isolated from the display case to avoid air/mass exchange. Only climatic control devices (active and passive) compartment is interrelated to the display space.

The technical compartment dedicated to the light sources is isolated from the display space. If necessary, it has its own ventilation.

The technical compartment is stable and does not transmit vibrations from floors or walls into the display space and has its separate access allowing for the maintenance of the installations without endangering the objects.

4.3.3 Base and mounting of the showcase

The base, plinth or any other form of mounting shall ensure the stability of the showcase and limit vibrations.

The base shall be strong and large enough to ensure the stability and balance of the showcase. If this is not possible the showcase shall be fixed to the floor or the wall or shall be weighted to increase stability.

Mounting of the showcase take into account the weight of the showcase, its contents and the quality of the substrate (e.g. wall or floor).

4.3.4 Materials and display components

All materials shall be carefully selected and suitable to the nature of the objects (see 4.5.1).

4.3.4.1 Lining inside the showcases

All linings of the showcase should be easy to maintain and or replace.

4.3.4.2 Supports

The supports shall maintain the physical integrity of the objects. They shall not exert internal tensions or external forces.

The object together with the support shall be stable; using a system of fixing that holds the objects static even in case of vibrations.

The contact between the object and the support shall be insulated with an intermediate material of appropriate density and texture.

The supports shall hold the objects safely and securely without exerting undue pressure, tension or torque.

4.4 Security and safety

The assembly of the showcase shall preserve the same degree of resistance as that of the glazing. The non-glazed parts shall have a mechanical resistance equivalent to the resistance of glazing. They shall not be dismountable with common hand tools.