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BSI Standards Publication

**Conservation of Cultural Heritage – Specifications  
for location, construction and modification  
of buildings or rooms intended for the  
storage or use of heritage collections**

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## National foreword

This British Standard is the UK implementation of EN 16893:2018. Together with BS 4971:2017, it supersedes PD 5454:2012 and BS 4971:2002, which are withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/560, Conservation of tangible cultural heritage.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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**Compliance with a British Standard cannot confer immunity from legal obligations.**

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## EUROPÄISCHE NORM

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English Version

## Conservation of Cultural Heritage - Specifications for location, construction and modification of buildings or rooms intended for the storage or use of heritage collections

Conservation du patrimoine culturel - Spécifications pour l'emplacement, la construction et la modification des bâtiments et des salles destinés au stockage ou à l'utilisation de collections

Erhaltung des kulturellen Erbes - Festlegungen für Standort, Errichtung und Änderung von Gebäuden oder Räumlichkeiten für die Lagerung oder Nutzung von Sammlungen des kulturellen Erbes

This European Standard was approved by CEN on 20 November 2017.

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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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<b>Contents</b>		Page
<b>European foreword</b> .....		5
<b>Introduction</b> .....		6
<b>1</b>	<b>Scope</b> .....	7
<b>2</b>	<b>Normative references</b> .....	7
<b>3</b>	<b>Terms and definitions</b> .....	7
<b>4</b>	<b>Principles and strategies</b> .....	11
<b>4.1</b>	<b>Sustainability</b> .....	11
<b>4.2</b>	<b>Risk management</b> .....	11
<b>4.2.1</b>	<b>General</b> .....	11
<b>4.2.2</b>	<b>Hazards to collections</b> .....	12
<b>4.3</b>	<b>Environmental strategy</b> .....	12
<b>4.3.1</b>	<b>General</b> .....	12
<b>4.3.2</b>	<b>Collection information</b> .....	12
<b>4.3.3</b>	<b>Specifications for environmental protection</b> .....	13
<b>4.4</b>	<b>Environmental monitoring strategy</b> .....	13
<b>4.4.1</b>	<b>General</b> .....	13
<b>4.4.2</b>	<b>Methodology</b> .....	13
<b>4.5</b>	<b>Facilities management strategy</b> .....	14
<b>5</b>	<b>Building specifications</b> .....	14
<b>5.1</b>	<b>Building location</b> .....	14
<b>5.1.1</b>	<b>Hazards identification</b> .....	14
<b>5.1.2</b>	<b>Natural hazards</b> .....	15
<b>5.2</b>	<b>Site capacity</b> .....	15
<b>5.2.1</b>	<b>General</b> .....	15
<b>5.2.2</b>	<b>Self-containment</b> .....	16
<b>5.3</b>	<b>Building structure and environmental protection</b> .....	16
<b>5.3.1</b>	<b>General</b> .....	16
<b>5.3.2</b>	<b>Construction materials</b> .....	16
<b>5.3.3</b>	<b>Building acclimatization</b> .....	16
<b>5.3.4</b>	<b>Passive or low-energy environment structures</b> .....	17
<b>5.4</b>	<b>Air quality</b> .....	18
<b>5.4.1</b>	<b>General</b> .....	18
<b>5.4.2</b>	<b>External pollutants</b> .....	18
<b>5.4.3</b>	<b>Internal pollutants</b> .....	19
<b>5.4.4</b>	<b>Ventilation</b> .....	20
<b>5.5</b>	<b>Mechanical environmental control</b> .....	20
<b>5.5.1</b>	<b>General</b> .....	20
<b>5.5.2</b>	<b>Air conditioning for storage repositories</b> .....	21
<b>5.6</b>	<b>Prevention of infestation by pests and mould</b> .....	21
<b>5.7</b>	<b>Protection against water</b> .....	22
<b>5.7.1</b>	<b>Design and materials</b> .....	22
<b>5.7.2</b>	<b>Rainwater discharge systems</b> .....	22
<b>5.7.3</b>	<b>Drainage and piping work</b> .....	22
<b>5.8</b>	<b>Windows and lighting</b> .....	23
<b>5.8.1</b>	<b>General</b> .....	23

This is a preview of "BS EN 16893:2018". [Click here to purchase the full version from the ANSI store.](#)

5.8.2	Glazing and light levels.....	23
5.8.3	Artificial lighting.....	23
5.8.4	Lamps.....	23
5.9	Emergency electrical supply.....	24
5.10	Ceilings.....	24
5.11	Floors and load distribution.....	24
5.11.1	General.....	24
5.11.2	Calculation of floor loads.....	24
5.12	Storage space arrangements.....	24
6	Fire protection and prevention.....	25
6.1	General.....	25
6.2	Fire risk assessment.....	25
6.3	Structural fire protection.....	26
6.3.1	General.....	26
6.3.2	Structural fire resistance.....	26
6.3.3	Lightning conduction.....	26
6.3.4	Fire compartments.....	26
6.3.5	Doors and other openings.....	27
6.3.6	Vertical openings.....	27
6.3.7	Minimizing fire hazard in an electrical system.....	27
6.4	Minimizing fire hazards in ventilation plant and equipment.....	27
6.4.1	Ductwork.....	27
6.4.2	Dampers.....	27
6.5	Fire detection and firefighting.....	28
6.5.1	General.....	28
6.5.2	Detection and alarm systems.....	28
6.5.3	Monitoring.....	28
6.5.4	Automatic fire-fighting systems.....	28
6.5.5	Portable fire extinguishers.....	28
6.5.6	Protection of areas adjacent to collection spaces.....	29
6.5.7	Smoke extraction.....	29
6.5.8	Fire control and mobile shelves.....	29
7	Security specifications.....	29
7.1	General.....	29
7.2	Security risk assessment.....	29
7.3	Site security.....	29
7.4	Protection against intruders.....	29
7.5	Entrances.....	30
7.6	Services.....	30
7.7	Windows.....	30
7.8	External doors to the building.....	30
Annex A (informative)	Automatic fire-fighting systems.....	31
A.1	General.....	31
A.2	Combustible materials.....	31
A.3	Inert gas and chemical agent suppression systems.....	31
A.4	Overpressure.....	32
A.5	Reduced oxygen systems.....	32
A.6	Water-mist systems.....	32

This is a preview of "BS EN 16893:2018". [Click here to purchase the full version from the ANSI store.](#)

<b>Annex B (informative) Relative risk of damage and deterioration due to temperature .....</b>	<b>33</b>
<b>Annex C (informative) Relative risk of damage and deterioration due to relative humidity .....</b>	<b>36</b>
<b>Annex D (informative) Examples of internal pollutants and their sources .....</b>	<b>39</b>
<b>Annex E (informative) Light Sensitivity - Sensitivity of coloured materials to light.....</b>	<b>40</b>
<b>Annex F (informative) Recommended maximum loads.....</b>	<b>41</b>
<b>Bibliography.....</b>	<b>42</b>

This is a preview of "BS EN 16893:2018". [Click here to purchase the full version from the ANSI store.](#)

## European foreword

This document (EN 16893:2018) 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 August 2018, and conflicting national standards shall be withdrawn at the latest by August 2018.

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

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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## **Introduction**

Cultural heritage collections are intended to be kept for future as well as current generations. Their long-term conservation can only be achieved if the sites and buildings that house them support this goal and do not place them at risk. Building features that are intended to protect collections are primarily structural, involving resilience against external and internal hazards including fire, water, pests, criminal activity and environments that interact with heritage materials.

Environmental considerations for collections are influenced by the nature of their materials, their condition and the uses to which they are put. They are also influenced by policies relating to conservation objectives, such as longevity of collections, and by the nature and costs of energy required to achieve these objectives.

This standard assists custodians of cultural heritage collections by defining the criteria and information necessary to make policy relating to conservation that will in turn influence the outcome of building construction. It is also intended to help them define the specifications necessary for the construction or modification of buildings such that they can safely house collections.

These specifications should be used by architects, engineers and others responsible for the design and construction of new archives, libraries and museums, or modifying spaces within existing buildings for these purposes.

These specifications might not be applicable in historic buildings which may also contain cultural heritage objects, e.g. churches.

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## 1 Scope

This European Standard gives specifications and guidance for the location, construction and arrangement of buildings specifically intended for internal storage of all heritage collection types and formats.

This standard applies to buildings where collections are housed permanently and can be used as guidance for shorter-term display spaces where appropriate. Throughout the document, where specifications relate exclusively to storage spaces, these are defined as such. Where specifications can also be applied to areas such as display galleries or reading rooms, these applications are referred to explicitly.

Clauses relating to risks associated with security, environmental hazards, fire, water and pests apply to buildings as a whole and to any room in which collections may be held.

Some of the clauses in this standard may be applicable in protected historic buildings that contain collections. In these settings, the scope for any alterations or achievement of conditions suitable for collections may be limited by the historic character of the structure, especially where it is protected by heritage regulations.

**NOTE** This standard covers the structure of buildings containing heritage collections, whether for storage or use. For a description of technical processing spaces recommended in the design specifically of a storage building open to the public, attention is drawn to EN 16141.

This standard should be seen as complementary to national or local building regulations and specifications.

## 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 1627, *Pedestrian doorsets, windows, curtain walling, grilles and shutters — Burglar resistance — Requirements and classification*

EN 1838, *Lighting applications — Emergency lighting*

EN 12056-3, *Gravity drainage systems inside buildings — Part 3: Roof drainage, layout and calculation*

CEN/TS 16163, *Conservation of Cultural Heritage — Guidelines and procedures for choosing appropriate lighting for indoor exhibitions*

EN 62305-2, *Protection against lightning — Part 2: Risk management (IEC 62305-2)*

EN 60332-1-1, *Tests on electric and optical fibre cables under fire conditions — Part 1-1: Test for vertical flame propagation for a single insulated wire or cable — Apparatus (IEC 60332-1-1)*

EN 60529, *Degrees of protection provided by enclosures (IP Code) (IEC 60529)*

EN ISO 16890-1, *Air filters for general ventilation — Part 1: Technical specifications, requirements and classification system based upon particulate matter efficiency (ePM) (ISO 16890-1)*

## 3 Terms and definitions

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