

STN	Starostlivosť o zachovanie kultúrneho dedičstva Umelé starnutie simulovaným slnečným žiarením povrchu neupravených alebo upravených poréznych anorganických materiálov	STN EN 17036 76 0104
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Conservation of Cultural Heritage - Artificial ageing by simulated solar radiation of the surface of untreated or treated porous inorganic materials

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

Conservation of Cultural Heritage - Artificial ageing by simulated solar radiation of the surface of untreated or treated porous inorganic materials

Conservation du patrimoine culturel - Vieillessement artificiel par rayonnement solaire simulé de la surface de matériaux inorganiques poreux traités ou non traités

Erhaltung des kulturellen Erbes - Künstliche Alterung von unbehandelten oder behandelten porösen anorganischen Materialoberflächen mit simulierter Sonnenstrahlung

This European Standard was approved by CEN on 15 February 2018.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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EN 17036:2018 (E)

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European foreword

This document (EN 17036:2018) 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of an identical text or by endorsement, at the latest by December 2018, and conflicting national standards shall be withdrawn at the latest by December 2018.

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

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EN 17036:2018 (E)**Introduction**

In contrast to natural weathering, artificial ageing using simulated solar radiation involves a limited number of variables which can be controlled more readily and which are intensified to evaluate in a short way the stability of porous inorganic materials and the durability of conservation treatments.

The ageing processes which occur during artificial and natural weathering cannot be expected to correlate exactly with each other because of the large number of factors influencing these processes. Definite relationships can only be expected if the important parameters (distribution of the irradiance over the photochemical relevant part of the spectrum, temperature of the specimen, type of wetting and wetting cycle, and relative humidity) are the same in each case or if their effect on the coatings is known.

No direct correlation can be made between artificial ageing duration and actual exposure duration. However, performance comparisons under the controlled conditions of artificial weathering can be compared to documented performance of materials and coatings that have experienced extended periods of end use exposure.

This methodology is intended to be used on new materials. In all cases, the risk of potential damage to irreplaceable objects during irradiation should be considered.

1 Scope

This document assesses the long-term susceptibility to light of materials and treatments used in conservation of porous inorganic materials. Examples may include materials which have been treated in the course of conservation (e.g. cleaning, consolidation, water repellents, coatings or biocides) or materials which may exhibit colour changes following exposure (e.g. mortars and small number of stones). The procedure can be used to evaluate the impact and longevity/durability of treatments against untreated materials or unexposed materials.

NOTE 1 Porous inorganic materials are both natural stones (rocks) and artificial stone materials (mortars, stuccoes, bricks, ceramic materials, etc.).

NOTE 2 Treated materials are those on which one of the following treatments has been applied: cleaning, application of water repellent, consolidating materials, coatings or biocides and artificial ageing.

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 13373, *Natural stone test methods — Determination of geometric characteristics on units*

EN 16085, *Conservation of Cultural property — Methodology for sampling from materials of cultural property — General rules*

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