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I.S. EN 15802:2009

# Conservation of cultural property - Test methods - Determination of static contact angle

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EUROPEAN STANDARD

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English Version

## Conservation of cultural property - Test methods - Determination of static contact angle

Conservation des biens culturels - Méthodes d'essai -  
Détermination de l'angle de contact statique

Erhaltung des kulturellen Erbes - Prüfverfahren - Messung  
des statischen Kontaktwinkels

This European Standard was approved by CEN on 7 November 2009.

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## **Foreword**

This document (EN 15802:2009) has been prepared by Technical Committee CEN/TC 346 “Conservation of cultural property”, 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of an identical text or by endorsement, at the latest by June 2010 and conflicting national standards shall be withdrawn at the latest by June 2010.

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## **Introduction**

This test method can be applied if it does not change the value of the cultural property and follows relevant ethical codes of conservation practice.

## 1 Scope

This European Standard specifies a method for the measurement of the static contact angle of a water drop on porous inorganic materials used for and constituting cultural property. The method may be applied to porous inorganic materials either untreated or subjected to any treatment or ageing.

## 2 Normative references

The following referenced documents are indispensable for the application 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.

prEN 15898:2009, *Conservation of cultural property — Main general terms and definitions concerning conservation of cultural property*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in prEN 15898:2009 and the following apply.

### 3.1

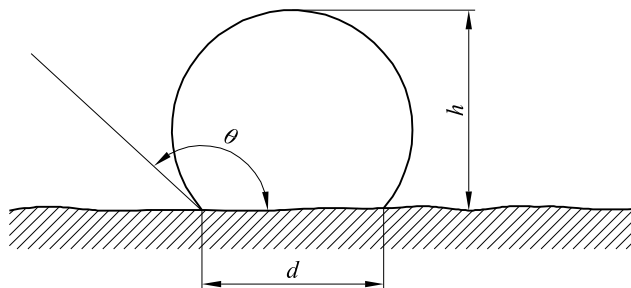
#### **porous inorganic materials**

materials including natural stones, e.g. sandstone, limestone, marble, as well as artificial materials, such as mortar, plaster, brick and others

### 3.2

#### **static contact angle**

angle  $\theta$ , in degrees, formed by the surface of the specimen and the tangent to the water drop at the contact point, as shown in Figure 1



#### **Key**

$d$  diameter of the contact surface, in mm

$h$  height, in mm

$\theta$  static contact angle, in degrees

**Figure 1 — Static contact angle at time  $t$**

## 4 Principle

Determination of the static contact angle between a water drop and the test surface of the specimen.

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