

**Corrosion of metals and alloys - Determination of  
dezincification resistance of copper alloys with zinc -  
Part 1: Test method (ISO 6509-1:2014)**

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ICS 77.060

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English Version

## Corrosion of metals and alloys - Determination of dezincification resistance of copper alloys with zinc - Part 1: Test method (ISO 6509-1:2014)

Corrosion des métaux et alliages - Détermination de la résistance à la dézincification des alliages de cuivre avec le zinc - Partie 1: Méthode d'essai (ISO 6509-1:2014)

Korrosion von Metallen und Legierungen - Bestimmung der Entzinkungsbeständigkeit von Kupfer-Zink-Legierungen - Teil 1: Prüfverfahren (ISO 6509-1:2014)

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## Foreword

This document (EN ISO 6509-1:2014) has been prepared by Technical Committee ISO/TC 156 "Corrosion of metals and alloys" in collaboration with Technical Committee CEN/TC 262 "Metallic and other inorganic coatings" the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by December 2014, and conflicting national standards shall be withdrawn at the latest by December 2014.

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This document supersedes EN ISO 6509:1995.

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### Endorsement notice

The text of ISO 6509-1:2014 has been approved by CEN as EN ISO 6509-1:2014 without any modification.

# Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Principle</b> .....	<b>1</b>
<b>5 Reagents and materials</b> .....	<b>1</b>
<b>6 Apparatus</b> .....	<b>2</b>
<b>7 Test specimens</b> .....	<b>2</b>
<b>8 Preparation of test specimens</b> .....	<b>3</b>
<b>9 Procedure</b> .....	<b>4</b>
9.1 Positioning of test specimens for test.....	4
9.2 Operating conditions.....	4
9.3 Duration of test.....	4
9.4 Preparation of sections for microscopic examination.....	4
9.5 Microscopic examination.....	4
<b>10 Test report</b> .....	<b>6</b>
<b>Bibliography</b> .....	<b>7</b>

# Corrosion of metals and alloys — Determination of dezincification resistance of copper alloys with zinc —

## Part 1: Test method

### 1 Scope

This part of ISO 6509 specifies a method for the determination of dezincification depth of copper alloys with zinc exposed to fresh, saline waters or drinking water. The method is intended for copper alloys with a mass fraction of zinc more than 15 %.

This part of ISO 6509 describes only the test methodology and does not set out criteria for acceptability of materials for a specific application. Acceptance criteria are described in ISO 6509-2.

NOTE The method may be used outside its scope for control or research purposes.

### 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.

ISO 8044, *Corrosion of metals and alloys — Basic terms and definitions*

### 3 Terms and definitions

For the purposes of this document the terms and definitions given in ISO 8044 apply.

### 4 Principle

Exposure of test specimens to copper (II) chloride solution followed by microscopic examination.

### 5 Reagents and materials

**5.1 Copper (II) chloride**, mass fraction 1 % solution, freshly prepared.

Dissolve 12,7 g of copper(II) chloride dihydrate ( $\text{CuCl}_2 \cdot 2\text{H}_2\text{O}$ ) in deionized water (5.2) and make up the volume to 1 000 ml.

**5.2 Water**, deionized with a conductivity not higher than  $20 \mu\text{S}/\text{cm}$  at  $25 \text{ °C} \pm 2 \text{ °C}$ .

**5.3 Non-conducting mounting material**, such as phenolic resin for embedding the test specimens.

**5.4 Appropriate solvent**, for cleaning the test specimens.