



SLOVENSKI STANDARD SIST EN ISO 16784-1:2008

01-julij-2008

Corrosion of metals and alloys - Corrosion and fouling in industrial cooling water systems - Part 1: Guidelines for conducting pilot-scale evaluation of corrosion and fouling control additives for open recirculating cooling water systems (ISO 16784-1:2006)

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Corrosion des métaux et alliages - Corrosion et entartrage des circuits de refroidissement a eau industriels - Partie 1: Lignes directrices pour l'évaluation pilote des additifs anticorrosion et antitartre pour circuits de refroidissement a eau a recirculation ouverts (ISO 16784-1:2006)

Ta slovenski standard je istoveten z: EN ISO 16784-1:2008

ICS:

77.060 Korozija kovin Corrosion of metals

SIST EN ISO 16784-1:2008 en

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ICS 77.060

English Version

Corrosion of metals and alloys - Corrosion and fouling in industrial cooling water systems - Part 1: Guidelines for conducting pilot-scale evaluation of corrosion and fouling control additives for open recirculating cooling water systems (ISO 16784-1:2006)

Corrosion des métaux et alliages - Corrosion et entartrage des circuits de refroidissement à eau industriels - Partie 1: Lignes directrices pour l'évaluation pilote des additifs anticorrosion et antitartre pour circuits de refroidissement à eau à recirculation ouverts (ISO 16784-1:2006)

Korrosion von Metallen und Legierungen - Korrosion und Fouling in industriellen Kühlwassersystemen - Teil 1: Leitfaden für die Bewertung von Zusatzstoffen gegen Korrosion und Fouling in offenen Kühlwasserzirkulationssystemen (ISO 16784-1:2006)

This European Standard was approved by CEN on 21 March 2008.

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Foreword

The text of ISO 16784-1:2006 has been prepared by Technical Committee ISO/TC 156 "Corrosion of metals and alloys" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 16784-1:2008 by 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of an identical text or by endorsement, at the latest by October 2008, and conflicting national standards shall be withdrawn at the latest by October 2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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The text of ISO 16784-1:2006 has been approved by CEN as a EN ISO 16784-1:2008 without any modification.

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**Corrosion of metals and alloys —
Corrosion and fouling in industrial
cooling water systems —**

Part 1:

**Guidelines for conducting pilot-scale
evaluation of corrosion and fouling
control additives for open recirculating
cooling water systems**

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*Corrosion des métaux et alliages — Corrosion et entartrage des circuits
de refroidissement à eau industriels —*

*Partie 1: Lignes directrices pour l'évaluation pilote des additifs
anticorrosion et antitartre pour circuits de refroidissement à eau à
recirculation ouverts*



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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 16784-1 was prepared by Technical Committee ISO/TC 156, *Corrosion of metals and alloys*.

ISO 16784 consists of the following parts under the general title *Corrosion of metals and alloys — Corrosion and fouling in industrial cooling water systems*:

- *Part 1: Guidelines for conducting pilot-scale evaluation of corrosion and fouling control additives for open recirculating cooling water systems*
- *Part 2: Evaluation of the performance of cooling water treatment programmes using a pilot-scale test rig*

Introduction

Environmental requirements, water shortages, and business pressures have forced industrial plants and power stations to operate with longer production runs, reduced maintenance outages, fewer operating personnel, and increased stress on cooling water systems. Similarly, commercial refrigeration (heating, ventilating, and air conditioning [HVAC]) systems have experienced increased heat loads and requirements for a long-term, continuous, cooling water supply to computer facilities, large retail establishments, campuses, and office complexes.

Under these increasingly severe conditions, cooling water chemical treatment programmes are expected to maintain optimum operating efficiency and, at the same time, protect the economic life of the equipment by inhibiting corrosion, mineral scaling, microbiological fouling, and miscellaneous deposition on heat-transfer surfaces.

Cooling system design and operating characteristics vary widely, within individual plants, from site to site, and worldwide. Thus, selection and optimization of water treatment programmes must be a site-specific process. In most systems, optimized cooling water chemical treatment is the key to successful long-term operations. The subject of this part of ISO 16784 is, therefore, the establishment of criteria for the pilot-scale evaluation of the performance of cooling water additives under field-specific operating conditions.

This part of ISO 16784 is intended for use by cooling system owners/operators, water treatment companies and others who must evaluate the performance of cooling water additives under field-specific operating conditions.

This part of ISO 16784 was developed on the basis of NACE RP0300 [4].

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