# INTERNATIONAL STANDARD



First edition 2010-03-01

# Pulps — Standard tap water for drainability measurements — Conductivity 40 mS/m to 150 mS/m

Pâtes — Eau du robinet normalisée pour mesurages de l'aptitude à l'égouttage — Conductivité comprise entre 40 mS/m et 150 mS/m



Reference number ISO 14436:2010(E)

### PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

the series a preview denerated by FUS



### **COPYRIGHT PROTECTED DOCUMENT**

#### © ISO 2010

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office Case postale 56 • CH-1211 Geneva 20 Tel. + 41 22 749 01 11 Fax + 41 22 749 09 47 E-mail copyright@iso.org Web www.iso.org Published in Switzerland

# Contents

Forewo	ordiv
Introdu	ictionv
1	Scope
2	Normative references1
3	Terms and definitions1
4	Principle
5	Reagents for preparation of standard tap water
6	Preparation of standard tap water
7	Reporting test results 2
Annex	A (informative) Influence of the conductivity on drainability results for different pulps
BIDIOG	Preparation of standard tap water

## Foreword

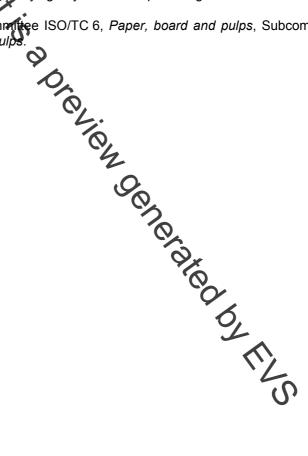
ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in Maison 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 14436 was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*, Subcommittee SC 5, *Test methods and quality specifications for pulps*.



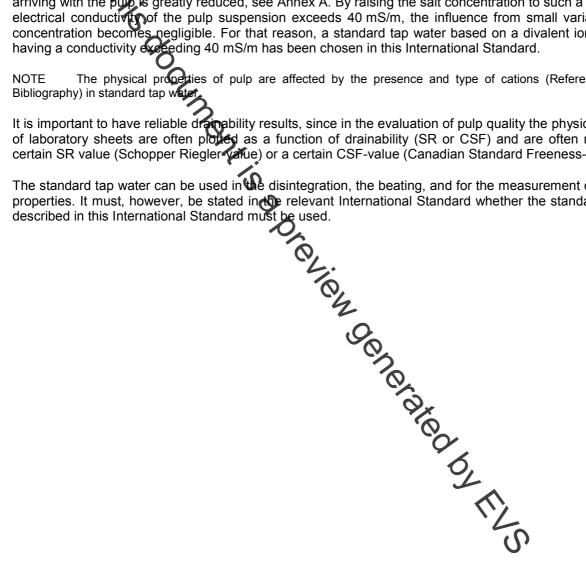
### Introduction

It is well known that even small amounts of electrolytes (salts) influence the drainability properties of a pulp suspension (References [2] and [3] in the Bibliography). The common practice in pulp testing has been to prepare pulp suspensions using distilled water. Since many pulps contain some electrolytes this practice results in salt concentrations in the pulp suspension that vary with the pulp under test. By using water containing a specified amount of electrolytes when preparing the pulp suspension, the influence from salts arriving with the pub is greatly reduced, see Annex A. By raising the salt concentration to such a level that the electrical conductivity of the pulp suspension exceeds 40 mS/m, the influence from small variations in salt concentration becomes negligible. For that reason, a standard tap water based on a divalent ion (Mg<sup>2+</sup>) and

The physical properties of pulp are affected by the presence and type of cations (Reference [4] in the

It is important to have reliable drainability results, since in the evaluation of pulp quality the physical properties of laboratory sheets are often plotted as a function of drainability (SR or CSF) and are often reported at a certain SR value (Schopper Riegler-value) or a certain CSF-value (Canadian Standard Freeness-value).

The standard tap water can be used in the disintegration, the beating, and for the measurement of drainability properties. It must, however, be stated in the relevant International Standard whether the standard tap water



this document is a preview denerated by EUS

# Pulps — Standard tap water for drainability measurements — Conductivity 40 mS/m to 150 mS/m

### 1 Scope 🥒

This International Standard describes the specification and preparation of standard tap water, of conductivity between 40 mS/m and 150 mS/m, for drainability measurements.

This International Standard is applicable to all kinds of pulps.

NOTE ISO 14487<sup>[1]</sup> describes the specification and preparation of standard distilled/deionized water.

### 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.

ISO 6587, Paper, board and pulps — Determination of conductivity of aqueous extracts

### 3 Terms and definitions

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

### 3.1

### standard tap water

distilled, deionized or tap water, having a conductivity between wmS/m and 150 mS/m achieved by adding a magnesium salt to the water, and having concentrations of iron, manganese and/or aluminium not exceeding 1 mg/l

### 4 Principle

The standard tap water is prepared by adding magnesium sulfate to distilled water, deionized water or any other type of water that meets the requirements in this International Standard (see 5.1) until the specified electrical conductivity of the water is reached.