

This is a preview of "ISO 23714:2014". [Click here to purchase the full version from the ANSI store.](#)

Second edition  
2014-02-01

---

---

## **Pulps — Determination of water retention value (WRV)**

*Pâtes — Détermination de la valeur de rétention d'eau (VRE)*



Reference number  
ISO 23714:2014(E)

© ISO 2014

This is a preview of "ISO 23714:2014". [Click here to purchase the full version from the ANSI store.](#)



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2014

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested 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](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

This is a preview of "ISO 23714:2014". [Click here to purchase the full version from the ANSI store.](#)

## Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</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</b> .....	<b>1</b>
<b>6 Apparatus</b> .....	<b>2</b>
<b>7 Sampling</b> .....	<b>3</b>
<b>8 Preparation of sample</b> .....	<b>3</b>
<b>9 Procedure</b> .....	<b>3</b>
9.1 General .....	3
9.2 Forming in a Büchner funnel .....	3
9.3 Centrifuging the test pad .....	3
<b>10 Calculation</b> .....	<b>4</b>
<b>11 Test report</b> .....	<b>4</b>
<b>Annex A (informative) Test-pad-holding units</b> .....	<b>5</b>
<b>Annex B (informative) Precision</b> .....	<b>7</b>

## 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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 6, *Paper, board and pulps*.

This second edition cancels and replaces the first edition (ISO 23714:2007) which has been revised to add a new precision statement that complies with the requirements of ISO/TR 24498.

This is a preview of "ISO 23714:2014". [Click here to purchase the full version from the ANSI store.](#)

## Introduction

The water retention value (WRV) is an empirical measure of the capacity of a test pad of fibres to hold water. The WRV increases with increasing beating because of internal fibrillation, a widening of the small internal pores, and delaminations, which has been called "swelling" and which occurs concurrently with the development of external fibrils, which also serve to hold additional water.

This test can be useful for the pulp producer as a guide to the influence of the pulping process on the fibre produced and the papermaking potential of the pulp. It is also useful for the papermaker as a measure of the efficiency of pulping and refining.