

# INTERNATIONAL STANDARD

**ISO**  
**11948-1**

First edition  
1996-11-15

---

## **Urine-absorbing aids —** **Part 1:** Whole-product testing

*Aides pour absorption d'urine —*

*Partie 1: Essais portant sur le produit entier*



Reference number  
ISO 11948-1:1996(E)

## Contents

## Page

1	Scope .....	1
2	Normative references .....	1
3	Definitions .....	1
4	Principle .....	1
5	Preconditioning of test samples .....	1
6	Test conditions .....	2
7	Reagent .....	2
8	Apparatus .....	2
9	Procedure .....	5
10	Test report .....	6
<b>Annex</b>		
A	Bibliography .....	7

© ISO 1996

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 the publisher.

International Organization for Standardization  
Case postale 56 • CH-1211 Genève 20 • Switzerland  
Internet central@isocs.iso.ch  
X.400 c=ch; a=400net; p=iso; o=isocs; s=central

Printed in Switzerland

## 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.

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.

International Standard ISO 11948-1 was prepared by Technical Committee ISO/TC 173, *Technical systems and aids for disabled or handicapped persons*, Subcommittee SC 3, *Aids for ostomy and incontinence*.

ISO 11948 consists of the following parts, under the general title *Urine-absorbing aids*:

- *Part 1: Whole-product testing.*
- *Part 2: Determination of short-time liquid release (leakage) under conditions of light incontinence and low pressure*

Annex A of ISO 11948 is for information only.

## Introduction

The method described in this part of ISO 11948 was selected from those used in the ISO Pad Leakage Project, in which a variety of disposable urine-absorbing aids were tested in various ways in the laboratory and by a user population of about 100 heavily incontinent persons, the majority of whom were non-ambulatory adult females residing in hospitals or nursing homes in eight different countries. The applicability of the method to other groups (e.g. babies or ambulatory adults) or to other classes of product (e.g. reusable or non-body worn) is unknown. See references [1] and [2] in annex A.

The method measures the maximum absorption capacity of the absorbing material in the entire urine-absorbing aid. The method is useful for comparing the performance of products whose absorbing cores are uniform in composition and absorbing properties, but it overestimates the amount of urine these products hold in actual use. The method has not been validated for predicting performance of urine-absorbing aids whose absorbent cores are designed to be non-uniform in composition and absorbing properties.

Urine-absorbing aid user performance is affected by many other factors in addition to absorption capacity, such as: the pressure on the product; the posture of the user (e.g. sitting, standing, moving, lying down); the flowrate at which the user loses urine; and how well the product is put on. From user trials, urine-absorbing aid performance is also known to be affected by composition and design features such as shaping, profiling, composition of the absorbent core, elastication and the kind of fixation system used to keep the product close to the body. This method does not differentiate these product features.

## Urine-absorbing aids —

### Part 1:

### Whole-product testing

#### 1 Scope

This part of ISO 11948 specifies a method for determining the absorption capacity of the absorbent core of body-worn urine-absorbing aids.

NOTE — Other methods for measuring absorption capacity examine aspects which are outside the scope of this part of ISO 11948.

#### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 11948. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 11948 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*.

ISO 6353-2:1983, *Reagents for chemical analysis — Part 2: Specifications — First series*.

#### 3 Definitions

For the purposes of this part of ISO 11948, the following definition applies:

**3.1 urine-absorbing aid:** Product containing material for the purpose of absorbing urine.

#### 4 Principle

The urine-absorbing aid is weighed dry, soaked in test liquid, drained, and weighed wet. Subtraction of the dry mass from the wet mass gives the absorption capacity.