

Paper and board — Determination of curl using a single vertically suspended test piece

ICS 85.060

National foreword

This British Standard reproduces verbatim ISO 11556:2005 and implements it as the UK national standard. It supersedes BS ISO 11556:1998 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PAI/11, Method of test for paper, board and pulp, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, the ISO title page, pages ii to v, a blank page, pages 1 to 12, an inside back cover and a back cover.

The BSI copyright notice displayed in this document indicates when the document was last issued.

Amendments issued since publication

Amd. No.	Date	Comments

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 October 2005

© BSI 31 October 2005

INTERNATIONAL STANDARD

ISO
11556

Second edition
2005-06-15

Paper and board — Determination of curl using a single vertically suspended test piece

*Papier et carton — Détermination du tuilage au moyen d'une éprouvette
unique suspendue verticalement*



Contents

Page

Foreword.....	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions.....	1
4 Principle	2
5 Apparatus	3
6 Sampling	3
7 Preparation of test pieces	3
8 Procedure	3
8.1 General information	3
8.2 Method	4
8.2.1 Exposing the test pieces to the test environment.....	4
8.2.2 Measurement of chord length and chord-to-arc distance	4
8.2.3 Identification of the side towards which the paper or board curls	4
8.2.4 Measurement of the angle of axis of curl	4
9 Calculations.....	5
9.1 Magnitude of curl	5
9.2 Angle of curl axis	5
9.3 Variation in side towards which paper or board curls.....	5
10 Repeatability and reproducibility	5
10.1 Repeatability	5
10.2 Reproducibility	6
11 Test report	6
Annex A (informative) Illustrations of magnitude and types of curl	7
Annex B (normative) Method of test piece support during curl measurement (illustrated for circular test pieces)	9
Annex C (normative) Modified engineer's vernier calliper for determining chord length (C) and chord-to-arc distance (h)	10
Annex D (informative) Examples of alternative curl calculations	11
Bibliography	12

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 11556 was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*, Subcommittee SC 2, *Test methods and quality specifications for paper and board*.

This second edition cancels and replaces the first edition (ISO 11556:1998), of which it constitutes a minor revision, and Technical Corrigendum 1, published 2003-04-01, which has been incorporated into this edition.

Introduction

The presence of curl in paper and board may be detrimental to its processing, and therefore there is a need for its measurement. Curl can be inherent in the paper when manufactured, or can be developed in the sheet during its use. This International Standard describes the procedure to be used for determination of curl in a pack of sheets.