

Second edition  
2015-11-01

---

---

# Recycled pulps — Estimation of Stickies and Plastics —

## Part 2: Image analysis method

*Pâtes recyclées — Estimation des matières collantes et des  
matières plastiques —*

*Partie 2: Méthode par analyse d'image*



Reference number  
ISO 15360-2:2015(E)

© ISO 2015



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2015, Published in Switzerland

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  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
[copyright@iso.org](mailto:copyright@iso.org)  
[www.iso.org](http://www.iso.org)

This is a preview of "ISO 15360-2:2015". 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>2</b>  |
| <b>5 Apparatus and equipment</b> .....                                                | <b>2</b>  |
| <b>6 Reagents</b> .....                                                               | <b>4</b>  |
| 6.1 For marking the Stickies by metallic powder adhering to the Stickies.....         | 4         |
| 6.2 For marking the Stickies by coating particles pulled out from a coated paper..... | 4         |
| <b>7 Sampling</b> .....                                                               | <b>4</b>  |
| <b>8 Adjustment and calibration of the image analysis system</b> .....                | <b>4</b>  |
| <b>9 Pretreatment of the sample</b> .....                                             | <b>4</b>  |
| <b>10 Procedure</b> .....                                                             | <b>5</b>  |
| 10.1 Processing the sample through the screening device.....                          | 5         |
| 10.2 Distribution of the separated Stickies or Plastics on the filter paper.....      | 5         |
| 10.3 Determination of Stickies by marking with metallic powder.....                   | 6         |
| 10.3.1 Heat setting.....                                                              | 6         |
| 10.3.2 Dyeing.....                                                                    | 6         |
| 10.3.3 Recording of Stickies.....                                                     | 6         |
| 10.4 Determination of Stickies by marking with white coating particles.....           | 6         |
| 10.4.1 Heat setting.....                                                              | 6         |
| 10.4.2 Filter paper washing.....                                                      | 7         |
| 10.4.3 Drying.....                                                                    | 7         |
| 10.4.4 Recording of Stickies.....                                                     | 7         |
| 10.5 Determination of Plastics.....                                                   | 7         |
| 10.6 Calculation of Stickies and Plastics.....                                        | 7         |
| <b>11 Calculations</b> .....                                                          | <b>8</b>  |
| 11.1 Number of Stickies and Plastics.....                                             | 8         |
| 11.2 Area of Stickies and Plastics.....                                               | 8         |
| <b>12 Test report</b> .....                                                           | <b>8</b>  |
| <b>Annex A (normative) Laboratory screening equipment</b> .....                       | <b>10</b> |
| <b>Annex B (normative) Comparison chart</b> .....                                     | <b>11</b> |
| <b>Annex C (informative) Precision</b> .....                                          | <b>12</b> |
| <b>Bibliography</b> .....                                                             | <b>14</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 15360-2:2001), of which it constitutes a minor revision by moving the precision statement to an informative annex. It also incorporates the technical corrigendum ISO 15360-2:2001/Cor 1:2007.

ISO 15360 consists of the following parts, under the general title *Recycled pulps — Estimation of Stickies and Plastics*:

- *Part 1: Visual method*
- *Part 2: Image analysis method*

This is a preview of "ISO 15360-2:2015". [Click here to purchase the full version from the ANSI store.](#)

## Introduction

This part of ISO 15360 is complementary to ISO 15360-1, which concerns estimation of Stickies and Plastics in recycled pulp by visual examination. ISO 15360-2 is particularly useful for pulps having a high content of Stickies or Plastics or both where visual inspection is very time-consuming to carry out.

Two alternatives are given for the estimation of Stickies, while there is only one procedure for the estimation of Plastics.