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Pulps — Sampling for testing

Pâtes — Échantillonnage pour essais

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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).

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).

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

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps.*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 172, *Pulp, paper and board,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 7213:1981), of which it constitutes a minor revision. The changes are as follows:

— updates to be consistent with ISO format requirements;

— minor editorial changes.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html..

Pulps — Sampling for testing

1 Scope

This document specifies a method of obtaining, for test purposes, a gross sample representative of a certain lot of pulp. This document applies to all kinds of pulp delivered in bales or rolls. It is intended for use when sampling for all kinds of testing purposes except for the determination of saleable mass, in which case other International Standards apply such as ISO 801-1 and ISO 801-2.

If, however, the pulp is to be tested for saleable mass in addition to other properties, the gross sample obtained according to the appropriate International Standard for sampling saleable mass can also be used for the other pulp property tests.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
lot
quantity of pulp of a single kind or grade, about which it is desired to make a judgement (usually to conform to agreed quality criteria)

Note 1 to entry: The number of bales or rolls comprising a lot may be indicated by the invoice or agreed upon by the contracting parties.

3.2
sample bale (or roll)
bale or roll that is selected for taking a specimen

3.3
specimen
quantity of pulp taken from a sample bale or roll

3.4
gross sample
combined specimens taken from a particular lot

4 Principle

Specimens of equal size are taken from a number of bales or rolls selected at random from the lot, and combined to form a gross sample.

NOTE The minimum number of bales to be sampled depends on the size of the lot.

5 Sample bales (or rolls)

All the sample bales (or rolls) shall be selected at random to be representative of the lot. The sample bales shall be intact and as little damaged as possible.

To obtain a truly representative sample, the whole lot should be available for sampling. The minimum number of sample bales (or rolls) to be taken, *n*, is given in Table 1. Where a whole lot is not available, the number of bales selected for sampling should be agreed upon between the interested parties. In the absence of any other agreement, the quantity of pulp available at the time of sampling shall be not less than half of the complete lot.

If the bales or rolls have identification numbers relating to several series, the sample bales (or rolls) shall be selected at random in proportion to the number of bales or rolls in each of these series, using the principle given in Table 1.

The identification marks and numbers should be reported for future reference, if necessary.

Table 1 — Number of sample bales (or rolls) to be taken

Total number of bales (or rolls) in the lot *N*	Minimum number of sample bales (or rolls) *n*
Up to 100	10
101 - 200	15
201 - 300	18
301- 400	20
401 - 500	23
501 - 600	25
601 - 700	27
701 - 800	29
801 - 900	30
901 - 1 000	32
Over 1 000	32
NOTE The table is based on the principle that *n* should not be less than the square root of *N*. However, this document does not require more than 32 bales (or rolls) to be sampled irrespective of the size of the lot.	

6 Procedure

6.1 General

From each sample bale or roll, take one specimen. Record the identification numbers of all the bales or rolls sampled. All the specimens should contain about the same amount of dry fibre. This amount depends on which tests are to be performed. Normally 100 g per specimen is sufficient.

Combine the specimens to form the gross sample. Wrap it to protect it from contamination. Keep it away from sunlight, heat and moisture.

Obtain the specimens as suggested in 6.2, 6.3, 6.4 or 6.5 as appropriate. If the pulp is to be tested for trace metals, do not use metallic tools and discard any cut edges of pulp where metallic contamination may have occurred.

6.2 Pulps baled in sheet form

Open the sample bales and randomly select one sheet from each bale. Do not select from the five top or bottom sheets, and avoid taking material which is within 7 cm to 8 cm of the edge of the sheet. From each sheet selected, tear a specimen of appropriate size, and discard the rest.