
Methods for

Determination of saleable mass, in lots, of pulp

Part 2. Pulps (such as flash-dried) baled in slabs

[ISO title : Pulps — Determination of saleable mass in lots —
Part 2 . Pulps (such as flash-dried pulp) baled in slabs]

Méthodes pour la détermination de la masse marchande des lots de pâtes
Partie 2. Balles de pâtes en plaques (pâte séchée en flocons)

Methoden zur Bestimmung von verkaufsfähiger Masse, postenweise, von Papierbrei
Teil 2. Ballen von Papierbrei (z.B. schnellgetrocknet) in Plattenform

Contents

	Page		Page
National foreword	Inside front cover	Annexes	
Cooperating organizations	Back cover	A. Example of a full certificate of analysis and related calculations	8
Methods		B. Report on investigations	11
0. Introduction	1	Table	
1. Scope and field application	1	1. Number of sample bales to be taken	5
2. Reference	1	Figures	
3. Definitions	1	1. Cutting tool	2
4. Principle	1	2. Cutting tool in use	3
5. Apparatus	2	3. The random card system	4
6. Sample bales	5	4. Sample selection by the random card system	4
7. Procedure	5		
8. Expression of results	6		
9. Test report	6		

National foreword

This British Standard has been prepared under the direction of the Paper Standards Committee. It is identical with ISO 801/2 'Pulps—Determination of saleable mass in lots—Part 2 : Pulps (such as flash-dried pulp) baled in slabs', which was developed by Technical Committee ISO/TC 6, Paper board and pulps, and was published in 1979 by the International Organization for Standardization (ISO).

BS 4747, entitled 'Method for the determination of the saleable mass, in lots, of pulp baled in sheet form', was first published in 1971. It was concerned with determination of saleable mass of pulp baled in sheet form, whereas BS 4747 is now published in Parts which are concerned with determination of saleable mass of pulp baled in slab form in addition to pulp baled in sheet form. The other Part of this British Standard, already published, is Part 1 'Pulp baled in sheet form'.

BS 4747 : 1971 is therefore now obsolete and is withdrawn from publication.

Terminology and conventions. The text of the international standard has been approved as suitable for publication, without deviation, as a British Standard. Some terminology and certain conventions are not identical with those used in British Standards; attention is especially drawn to the following.

The comma has been used throughout as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Wherever the words 'International Standard' appear, referring to this standard, they should be read as 'British Standard'.

Cross-reference

International standard	Corresponding British Standard
ISO 801/1-1979	BS 4747 Methods for determination of saleable mass, in lots, of pulp Part 1 : 1980 Pulp baled in sheet form (Identical)

British Standard Methods for

Determination of saleable mass, in lots, of pulp

Part 2. Pulps (such as flash-dried) baled in slabs

0 Introduction

This International Standard is complementary to ISO 801/1, which concerns the determination of saleable mass of pulp baled in sheet form.

For the time being, the working group ISO/TC 6/SC 5/WG 1 is considering possibilities to recommend a method which would be applicable to determining of saleable mass of pulp in unitized bales.

The extreme difficulty encountered in the cutting of wedges from thick slabs of pulp, such as flash-dried pulp, for which this test method has been designed, has led to the adoption of a disc sampling procedure, following an extensive investigation (practical and statistical) of the problem. A brief statement of this investigation is given in annex B, which does not belong to the body of this International Standard.

It is recognized that, although the wedge system of sampling is, in theory, more accurate than the disc system, the drilling procedure specified in this International Standard may be regarded as satisfactory because, in practice, the moisture variation from place to place is relatively small (for example in flash-dried pulps).

1 Scope and field of application

This International Standard specifies a method for determining the dryness of a lot of pulp baled in slabs and for calculating its saleable mass.

This method is applicable to most kinds of pulp, in bales of approximately 200 kg, and made up of 4 to 6 slabs or wads, of fairly uniform and similar thickness. It may also be applicable to

bales not composed of individual layers, but which are naturally delaminatable. It does not apply to pulp baled in sheet form or to pulp in unitized bales.

The method is not applicable if the drilling device becomes appreciably hot because of frictional heat evolved during drilling; this may occur with some strong chemical or semi-chemical pulps.

An example of a full certificate of analysis and related calculations is given in annex A.

2 Reference

ISO 801/1, *Pulps — Determination of saleable mass in lots — Part 1 : Pulp baled in sheet form.*

3 Definitions

For the purpose of this International Standard, the definitions in ISO 801/1 apply.

4 Principle

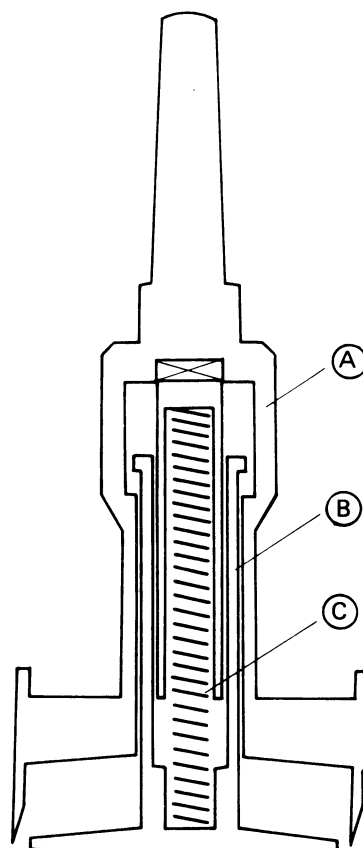
Sample bales are taken from the lot in number which is a function of the total number of bales and slabs in the complete lot and in accordance with a sliding scale. The sample bales are weighed individually and collected in groups containing equal numbers of bales. A disc-shaped test piece is cut from every lap or wad. The test pieces are weighed and dried to constant mass to determine their oven-dry mass. The saleable mass of the lot is then calculated.

5 Apparatus

5.1 Scale, suitable for weighing the bales to an accuracy of at least 1/1 000.

5.2 Balance, of sensitivity suitable for weighing the test pieces to an accuracy of at least 1/5 000.

5.3 Equipment, for cutting the disc-shaped test pieces, comprising a commercial drill of about 1 kW, a drill stand, and a cutting tool. (See figures 1 and 2).



- (A) Outer rotating part, consisting of a cone, an outer casing with four arms holding two cutting knives, and two chip breakers.
- (B) Inner stationary part, consisting of a circular footplate, and an inner casing with spring holder and ball bearing.
- (C) Coil spring, which expands between the rotating and the stationary parts.

Figure 1 — Cutting tool (see 5.3)

5.4 Series of 35 cards, to show the complete sequence of sampling positions in each lap or wad from which the discs are to be cut. (See clause 7, and figures 3 and 4.)

One sample is taken from every wad, in the position indicated by the sampling cards, which have one corner clipped to ensure

correct orientation. Thirty-five cards are prepared and one sampling position is marked on each, so that each card represents the surface of one slab. A card size of 100 mm × 75 mm is found suitable. The cards are divided into 7 strips of equal width in one direction, and 5 in the other, thus giving 35 sampling positions over the whole surface of the lap.

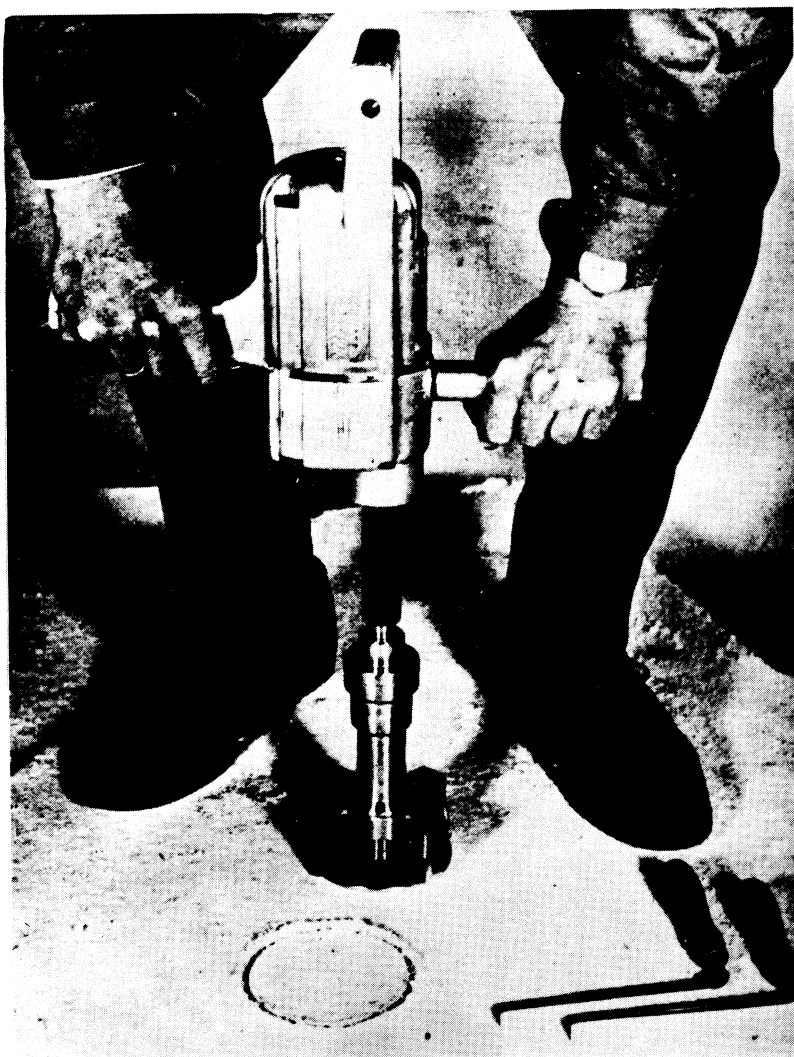


Figure 2 — Cutting tool in use