

TECHNICAL REPORT

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Raw tobacco — Determination of chlorophyll residues content (green index)

*Tabac matière première — Détermination de la teneur en résidus de
chlorophylle (indice vert)*



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Foreword

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- type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;
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ISO/TR 8452, which is a Technical Report of type 2, was prepared by Technical Committee ISO/TC 126, *Tobacco and tobacco products*, Subcommittee SC 2, *Leaf tobacco*.

This document is issued as a Technical Report of type 2 because results of collaborative studies could not be included for lack of participating laboratories.

Annex A of this Technical Report is for information only.

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Raw tobacco — Determination of chlorophyll residues content (green index)

1 Scope

This Technical Report describes a method which permits the rapid characterization of the degree of transformation of tobacco by estimating the “residual green” due to chlorophyll and its derivatives, which are not broken down during treatment of the tobacco (drying, fermentation, ageing).

This method is applicable to all types of raw tobacco, Oriental, Virginia, Burley and Black tobacco, in leaf or strip form.

2 Normative reference

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

ISO 6488:1981, *Tobacco — Determination of water content (Reference method)*.

3 Principle

Measurement of the optical density of powdered tobacco, prepared under standard conditions, by reflectance spectrometry (diffuse reflection).

4 Apparatus

4.1 Balance, capable of weighing to the nearest 0,05 g.

4.2 Chopping machine, for samples (automatic feed and cutting) or **disc cutter**.

4.3 Conditioned test cell.

4.4 Ball mill.

4.5 Press, for the preparation of powder tablets.

NOTE 1 A suitable device is given in annex A.

4.6 Spectrometer, with reflectance device.

5 Procedure

5.1 Sample preparation

5.1.1 Coarse conditioning of the tobacco for chopping

Place approximately 200 g of tobacco, in leaf or strip form, in a conditioning atmosphere for moistening (relative humidity of 90 %).

Adjust the duration of the conditioning in such a way that the water content of the tobacco is

for Black and Burley tobacco: about 25 %,

for Oriental and Virginia tobacco: about 15 %.

Cut the tobacco into shreds of 0,8 mm width.

5.1.2 Fine conditioning of the cut tobacco

The target moisture, H_e , is

for Black and Burley tobacco: 15 %,

for Oriental and Virginia tobacco: 12 %.

Determine the initial moisture content of the cut tobacco, H_i , by azeotropic distillation in accordance with ISO 6488.

Weigh, to the nearest 0,05 g, about 100 g of cut tobacco, m_i , and place it in a conditioning atmosphere for slow drying (relative humidity of 55 %).