INTERNATIONAL STANDARD

ISO 20716

First edition
2022-09

Oolong tea — Definition and basic requirements

Thé Oolong — Définition et caractéristiques de base

Reference number
ISO 20716:2022(E)

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Published in Switzerland

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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).

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This document was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 8, *Tea*.

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.

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Introduction

Tea is grown and manufactured in numerous countries of the world and is blended or drunk in many more.

The desired characteristics of an oolong tea and the resulting liquor depend upon a number of factors, including the type of water to be used for brewing, the preparation method, the degree of aeration/oxidization (formerly known as "fermentation"), the variety of tea plant and the unique processing method using fresh tea leaves. Oolong tea is a partially aerated/oxidized tea and, as such, the bruised edges of withered leaves and enzyme deactivation are compulsory processes.

This document specifies the plant source from which the oolong tea is to be manufactured, the process of making oolong tea, and requirements for certain chemical characteristics which, if met, are an indication that the tea has been subjected to good manufacturing practice.

The quality of oolong tea is usually assessed sensorially by skilled tea tasters, who base their judgements on their previous experience of oolong tea, their knowledge of the conditions in the producing areas, and the preferences of the consuming country. A number of factors are considered when evaluating the quality of oolong tea, including the appearance of the dry tea leaf (such as shape, colour, cleanliness and evenness), the appearance and odour of the infused leaf, and the appearance, odour and taste of the tea liquor. In practice, teas are submitted for chemical analysis only if a tea taster suspects that the product has been adulterated, or if it exhibits abnormal characteristics.

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Oolong tea — Definition and basic requirements

1 Scope

This document specifies the parts of a named plant that are suitable for making oolong tea for consumption as a beverage and the chemical requirements for oolong tea that are used to indicate that tea from that source has been produced in accordance with good production practices.

It also specifies the packing and marking requirements for oolong tea in containers.

It does not apply to scented/flavoured teas.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1572, *Tea — Preparation of ground sample of known dry matter content*

ISO 1573, *Tea — Determination of loss in mass at 103 degrees C*

ISO 1575, *Tea — Determination of total ash*

ISO 1839, *Tea — Sampling*

ISO 9768, *Tea — Determination of water extract*

ISO 10727, *Tea and instant tea in solid form — Determination of caffeine content — Method using high-performance liquid chromatography*

ISO 14502-1, *Determination of substances characteristic of green and black tea — Part 1: Content of total polyphenols in tea — Colorimetric method using Folin-Ciocalteu reagent*

ISO 14502-2, *Determination of substances characteristic of green and black tea — Part 2: Content of catechins in green tea — Method using high-performance liquid chromatography*

ISO 15598, *Tea — Determination of crude fibre content*

ISO 19563, *Determination of theanine in tea and instant tea in solid form using high-performance liquid chromatography*

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/

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3.1
oolong tea
tea derived solely and exclusively from the moderately matured new shoots of varieties of the species *Camellia sinensis* (Linnaeus) O.Kuntze, and produced by acceptable processes, notably withering, tumbling and aeration (partial aeration/oxidization), enzyme inactivation, shaping/rolling and drying, which is known to be suitable for consumption as a beverage

Note 1 to entry: Oolong tea can be categorized according to the degree of aeration into three main classifications: light aeration/oxidization, medium aeration/oxidization and high aeration/oxidization.

Note 2 to entry: Typical manufacturing processes are given in Annex A.

4 Requirements

4.1 General requirements

4.1.1 The tea shall be clean and free from extraneous matter when inspected visually.

4.1.2 The tea shall be free from taint, and shall have the characteristics, appearance, colour and taste of oolong tea, when examined by sensory analysis.

4.1.3 The tea shall be free from any additives such as colouring agents and flavourings.

4.2 Manufacturing requirements

4.2.1 Harvest

The new shoot with a certain degree of maturity, which has one bud and two to four leaves, shall be normally plucked for processing of oolong tea.

4.2.2 Withering

The plucked fresh tea leaves shall undergo a withering process. Withering may be carried out outdoors on sunny days to expose the leaves to sunlight. Alternatively, indoor withering is also commonly used, assisted by flow of air, with or without heating or dehumidification.

4.2.3 Tumbling and aeration

After withering, the tea leaves shall be processed to generate the unique taste and aroma of oolong tea by tumbling and aeration, through which the edge of tea leaves are bruised in special utensils (see Figures A.1, A.2 and A.3) for a certain period of time (usually about 2 min to 60 min). The leaves are then aerated statically for a certain period of time (usually about 1 h to 5 h). The tumbling and aeration process can be repeated several times to develop the desired characteristics. The status of the green leaf after different levels of aeration (oxidization) is as shown in Figures A.4 b), c) and d).

4.2.4 Enzyme inactivation

The aerated tea leaves shall be put into pan-firing equipment to pan-fire at a high temperature (usually about 250 °C to 300 °C) to deactivate the activity of enzymes in the tea and to stop the enzymatic reaction in the leaves.

4.2.5 Shaping

The pan-fired tea leaves can be usually processed by two types of shaping methods, rolling and wrapping-twisting, in which the rolling process produces strip-shape oolong tea, and the wrapping-twisting process produces irregular globular oolong tea.

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