

International Standard



3632

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Saffron — Specification

Safran — Spécifications

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3632 was developed by Technical Committee ISO/TC 34, *Agricultural food products*, and was circulated to the member bodies in December 1978.

It has been approved by the member bodies of the following countries :

Brazil	Hungary	South Africa, Rep. of
Bulgaria	India	Spain
Chile	Israel	Thailand
Cyprus	Kenya	Turkey
Czechoslovakia	Korea, Rep. of	United Kingdom
Egypt, Arab Rep. of	Mexico	USA
Ethiopia	Poland	Yugoslavia
France	Romania	

The member body of the following country expressed disapproval of the document on technical grounds :

Netherlands

Saffron — Specification

1 Scope

This International Standard specifies requirements for saffron obtained from the flowers of *Crocus sativus* Linnaeus.

2 Field of application

This International Standard is applicable to saffron in either of the following forms :

- in whole filaments as a loose, supple, elastic and hygroscopic mass of filaments;
- in powder form, obtained by grinding saffron filaments.

It is not applicable to saffron occurring in cut filaments, i.e. in the form of stigmas deprived of the style.

3 References

ISO 927, *Spices and condiments — Determination of extraneous matter.*

ISO 928, *Spices and condiments — Determination of total ash.*

ISO 930, *Spices and condiments — Determination of acid-insoluble ash.*

ISO 941, *Spices and condiments — Determination of cold water soluble extract.*

ISO 948, *Spices and condiments — Sampling.*

ISO 1871, *Agricultural food products — General directions for the determination of nitrogen by the Kjeldahl method.*

ISO 5498, *Agricultural food products — Determination of crude fibre content — General method.*¹⁾

4 Definitions

4.1 saffron in filaments : Stigmas of *Crocus sativus* Linnaeus, dried, dark red in colour and rolled into cornets, serrated or indented at the distal end. The stigmas may be either isolated or joined in twos or threes at the end of a portion of the style (which is also red in colour).

4.2 yellow filaments : Dried yellow stigmas of flowers of *Crocus sativus* Linnaeus.

4.3 floral waste : Yellow filaments, pollen, stamens, parts of ovary and other parts of the flower of *Crocus sativus* Linnaeus.

4.4 extraneous matter : Leaves, stems, chaff and other vegetable matter. The only mineral matter permitted is sand, earth and dust.

1) At present at the stage of draft.

5 Specification

5.1 Classification of saffron in whole filaments

Saffron in whole filaments is classified into three categories, as shown in table 1, on the basis of its floral waste and extraneous matter contents, which are determined respectively according to the method specified in annex B and that specified in ISO 927.

Table 1 — Classification of saffron in whole filaments

Characteristic	Category I type "Mancha"	Category II type "Rio"	Category III type "Sierra"
Floral waste, % (m/m) max.	7	13 to 15	17 to 20
Extraneous matter, % (m/m) max.	0,5	1	1

5.2 Flavour

The flavour of saffron shall be specific, slightly bitter and a little pungent. The product shall be free from foreign flavours.

5.3 Freedom from moulds, insects, etc.

Saffron shall be free from living insects, and shall be practically free from moulds, dead insects, insect fragments and rodent contamination visible to the naked eye (corrected, if necessary, for abnormal vision) using the required magnifying instrument in each particular case. If the magnification exceeds X 10, this fact shall be mentioned in the test report.

5.4 Chemical requirements¹⁾

Saffron in filaments or in powder form shall comply with the requirements laid down in table 2.

Saffron in powder form, when examined by the method specified in annex E, shall not reveal the presence of pigments other than those which are peculiar to saffron.

Table 2 — Chemical requirements for saffron in filaments or in powder form

Characteristic	Requirement		Method of test
	Saffron in filaments	Saffron in powder form	
Water and volatile matter, at 103 °C, % (m/m) max.	14	8	Annex C
Total ash, % (m/m), on the dry basis : max. min.	8 5	8 5	ISO 928
Ash insoluble in HCl, % (m/m), on the dry basis : Category I, max. Categories II and III, max.	1,0 1,5	1,0 1,5	ISO 930
Extract soluble in cold water, % (m/m), on the dry basis : max. min.	65 55	65 55	ISO 941
Total nitrogen, % (m/m), on the dry basis : max. min.	3,0 2,0	3,0 2,0	ISO 1871
Difference between the percentages on the dry basis, of reducing sugars before and after inversion, expressed in invert sugar, max.	*	*	
Crude fibre, % (m/m), on the dry basis, max.	**	**	ISO 5498
Colouring power $E_{1\%}^{1\text{cm}}$ at 440 nm : Category I, min. Category II, min.	110*** 80***	150*** 120***	Annex D

* Requirements will be indicated when a method has been standardized.

** Limits will be fixed later according to the method used.

*** Value given on an experimental basis.

1) Limits for toxic substances will be included later, in accordance with the recommendations of the FAO/WHO Codex Alimentarius Commission.