INTERNATIONAL STANDARD 2000

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Rubber, natural (NR) — Specifications

Caoutchouc naturel (NR) — Spécifications

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

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 2000 was developed by Technical Committee ISO/TC 45, *Rubber and rubber products*.

This fourth edition was submitted directly to the ISO Council in accordance with clause 6.13.1 of the Directives for the technical work of ISO. It cancels and replaces the third edition (i.e. ISO 2000-1977), which had been approved by the member bodies of the following countries :

Australia	Germany	Spain
Belgium	Hungary	Sweden
Brazil	India	Turkey
Bulgaria	Italy	United Kingdom
Canada	Malaysia	U.S.A.
Chile	Netherlands	U.S.S.R.
Czechoslovakia	New Zealand	Yugoslavia
Egypt, Arab Rep. of	Poland	
France	Romania	

No member body had expressed disapproval of the document.

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Rubber, natural (NR) — Specifications

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the minimum quality requirements and the corresponding methods of test for five grades of raw natural rubber sampled in accordance with ISO 1795 or as agreed between the interested parties.

The grades are defined by numerals which indicate their maximum dirt content and in the case of the lowest dirt content a letter indicating the availability of a light coloured grade.

2 REFERENCES

ISO 247, *Rubber — Determination of ash.*

ISO 248, *Rubbers, raw — Determination of volatile matter content.*

ISO 249, *Raw natural rubber — Determination of dirt.*

ISO 1656, *Raw natural rubber and natural rubber latex — Determination of nitrogen.*

ISO 1795, *Raw rubber in bales — Sampling.*

ISO 2007, *Raw rubber and unvulcanized compounded rubber — Rapid plasticity test.*

ISO 2930, *Raw natural rubber — Determination of plasticity retention index.*

ISO 4660, *Rubber, raw natural — Colour index test.*

3 REQUIREMENTS

3.1 Raw rubber supplied in accordance with this specification shall not have had skim rubber included in it.

3.2 Each bale of the sample shall be tested for compliance with the requirements shown in the table.

NOTE — Dirt content and plasticity retention index (PRI) are considered the primary specification parameters.

4 COMPLIANCE

The lot shall be regarded as still complying with the specification if only one bale of the sample fails to meet any one of the limits given in the table and if only one further bale of the sample fails to meet any other single limit. Alternatively, the compliance requirements shall be as agreed between the interested parties.

TABLE — **Requirements**

Characteristic	Limits for grade of rubber					Test method
	5L	5	10	20	50	
	Colour code					
	Green	Green	Brown	Red	Yellow	
Dirt content, % (*m/m*) retained on 45 µm sieve max.	0,05	0,05	0,10	0,20	0,50	ISO 249
Initial plasticity, min.	30	30	30	30	30	ISO 2007
Plasticity retention index (PRI), min.	60	60	50	40	30	ISO 2930
Nitrogen content*, % (*m/m*) max.	0,6	0,6	0,6	0,6	0,6	ISO 1656
Volatile matter content**, % (*m/m*) max.	1,0	1,0	1,0	1,0	1,0	ISO 248 (Oven method at 100 ± 5 °C)
Ash**, % (*m/m*) max.	0,6	0,6	0,75	1,0	1,5	ISO 247
Colour index, max.	6					ISO 4660

* For initial concentration rubber (ICR), the nitrogen content shall not exceed 0,7 % (*m/m*).

** For initial concentration rubber (ICR), volatile matter and ash contents shall be agreed between the interested parties and neither shall exceed 1,5 % (*m/m*).