

# INTERNATIONAL STANDARD

**ISO  
2000**

Fifth edition  
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## Rubber, raw natural — Specification

*Caoutchouc naturel brut — Spécifications*

**iTeh STANDARD PREVIEW**  
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ISO 2000:1989

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Reference number  
ISO 2000 : 1989 (E)

## 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.

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. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

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

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This fifth edition cancels and replaces the fourth edition (ISO 2000 : 1978), of which it constitutes a technical revision.

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# Rubber, raw natural — Specification

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### 1 Scope

This International Standard specifies the minimum quality requirements and the corresponding methods of test for six grades of raw natural rubber.

The grades except CV and L are defined by numerals which indicate their maximum dirt content. CV and L grades are defined in terms of specific properties such as viscosity stabilization for CV grade and light colour for L grade. The CV and L grades have the same maximum dirt content as 5 grade.

### 2 Normative references

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

ISO 247 : 1978, *Rubber — Determination of ash.*

ISO 248 : 1979, *Rubbers, raw — Determination of volatile matter content.*

ISO 249 : 1987, *Rubber, raw natural — Determination of dirt content.*

ISO 289 : 1985, *Rubber, unvulcanized — Determination of Mooney viscosity.*

ISO 1656 : 1988, *Rubber, raw natural, and rubber latex, natural — Determination of nitrogen content.*

ISO 1795 : 1974, *Raw rubber in bales — Sampling.*

ISO 2007 : 1981, *Rubber, unvulcanized — Determination of plasticity — Rapid plastimeter method.*

ISO 2930 : 1981, *Rubber, raw natural — Determination of plasticity retention index (PRI).*

ISO 4660 : 1977, *Rubber, raw natural — Colour index test.*

### 3 Sampling

Raw natural rubber shall be sampled in accordance with ISO 1795 or as agreed between the interested parties.

### 4 Requirements

4.1 Raw rubber supplied in accordance with this International Standard shall not contain skim rubber.

4.2 Each bale of the sample shall be tested for compliance with the requirements shown in table 1.

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

### 5 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 table 1 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 1 – Requirements

Characteristic	Limits for rubber grades						Test method
	CV	L	5	10	20	50	
	Colour code						
	Green	Green	Green	Brown	Red	Yellow	
Dirt content, % (m/m) retained on 45 µm sieve, max.	0,05	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	60	50	40	30	ISO 2930
Nitrogen content, % (m/m), max.	0,6	0,6	0,6	0,6	0,6	0,6	ISO 1656
Volatile matter content, % (m/m), max.	0,8	0,8	0,8	0,8	0,8	0,8	ISO 248 (Oven method at 100 °C ± 5 °C)
Ash, % (m/m), max.	0,6	0,6	0,6	0,75	1,0	1,5	ISO 247
Colour index, max.	—	6	—	—	—	—	ISO 4660
Mooney viscosity, ML (1 + 4) 100 °C	60 ± 5*)	—	—	—	—	—	ISO 289

\*) As produced. Other viscosity levels may be obtainable on request.

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