International Standard 2004

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

Rubber latex, natural — Centrifuged or creamed, ammonia-preserved types — Specification

Latex de caoutchoux naturel — Types centrifugés ou crémés, préservés à l'ammoniaque — Spécifications

Second edition — 1979-07-01

UDC 678.031

Ref. No. ISO 2004-1979 (E)

Descriptors : latex, rubber, natural rubber, specifications, materials specifications.

Price based on 2 pages

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 2004 was developed by Technical Committee ISO/TC 45, *Rubber and rubber products*, and was circulated to the member bodies in March 1978.

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

Australia	India	Sri Lanka
Austria	Ireland	Sweden
Belgium	Italy	Thailand
Brazil	Korea, Rep. of	Turkey
Bulgaria	Mexico	United Kingdom
Czechoslovakia	Netherlands	USA
Egypt, Arab Rep. of	Poland	USSR
Germany, F. R.	Romania	Yugoslavia
Greece	South Africa, Rep. of	
Hungary	Spain	

No member body expressed disapproval of the document.

This second edition cancels and replaces the first edition (i.e. ISO 2004-1974).

Rubber latex, natural — Centrifuged or creamed, ammonia-preserved types — Specification

1 Scope and field of application

This International Standard gives specifications for natural rubber latices which are preserved wholly or in part with ammonia and which have been concentrated by centrifuging or creaming. It does not apply to latices which have been concentrated by evaporation, or to latices from natural sources other than *Hevea brasiliensis* or to compounded latex or vulcanized latex.

This International Standard covers requirements for centrifuged and creamed natural rubber latices of the following types :

NR latex, type HA. Centrifuged latex preserved with ammonia only or with formaldehyde followed by ammonia, with an alkalinity of at least 0,60 % (*m*/*m*) on the latex.

NR latex, type LA. Centrifuged latex preserved with ammonia together with other preservative(s), with an alkalinity of not more than 0,29 % (*m*/*m*) on the latex.

NR latex, type XA. Centrifuged latex preserved with ammonia together with other preservative(s), with an alkalinity of at least 0,30 % (*m*/*m*) on the latex.

NR latex, type HA creamed. Creamed latex preserved with ammonia only or with formaldehyde followed by ammonia, with an alkalinity of at least 0,55 % (*m*/*m*) on the latex.

NR latex, type LA creamed. Creamed latex preserved with ammonia together with other preservative(s), with an alkalinity of not more than 0,35 % (*m*/*m*) on the latex.

2 References

ISO 35, *Natural rubber latex — Determination of mechanical stability.*

ISO 123, *Rubber latex — Sampling.*

ISO 124, *Rubber latices — Determination of total solids content.*

ISO 125, *Rubber — Natural latex — Determination of alkalinity.*

ISO 126, *Natural rubber latex — Determination of dry rubber content.*

ISO 127, *Natural rubber latex — Determination of KOH number.*

ISO 506, *Natural rubber latex — Determination of volatile fatty acid number.*

ISO 706, *Rubber latices — Determination of coagulum content.*

ISO/R 1654, *Raw rubber and rubber latex — Determination of copper.*

ISO 1655, *Raw rubber and rubber latex — Determination of manganese content — Potassium periodate photometric method.*

ISO 1802, *Natural rubber latex — Determination of boric acid.*

ISO 2005, *Natural rubber latex — Determination of sludge content.*

3 Requirements

The latex shall, if required, conform to the requirement for total solids content, and shall conform to all the other requirements given in the table.

If the latex contains preservative(s) other than ammonia or formaldehyde, the chemical nature and approximate quantity of such other preservative(s) shall be stated. The latex shall not contain fixed alkali added at any stage in its production.

4 Sampling

The latex shall be sampled by one of the methods specified in ISO 123.

Table — Requirements

Characteristic	Limits					Method of test
	type HA	type LA	type XA	type HA creamed	type LA creamed	
Total solids content[1], % (*m/m*), min.	61,5	61,5	61,5	66,0	66,0	ISO 124
Dry rubber content, % (*m/m*), min.	60,0	60,0	60,0	64,0	64,0	ISO 126
Non-rubber solids[2], % (*m/m*), max.	2,0	2,0	2,0	2,0	2,0	–
Alkalinity (as NH_3), % (*m/m*) on latex	0,60 min.	0,29 max.	0,30 min.	0,55 min.	0,35 max.	ISO 125
Mechanical stability[3], seconds, min.	650	650	650	650	650	ISO 35
Coagulum content, % (*m/m*), max.	0,05	0,05	0,05	0,05	0,05	ISO 706
Copper content, mg/kg of total solids, max.	8	8	8	8	8	ISO/R 1654
Manganese content, mg/kg of total solids, max.	8	8	8	8	8	ISO 1655
Sludge content, % (*m/m*), max.	0,10	0,10	0,10	0,10	0,10	ISO 2005
Volatile fatty acid number (VFA)	As agreed by the interested parties but not to exceed 0,20				for all five types	ISO 506
KOH number[4]	As agreed by the interested parties but not to exceed 1,0					ISO 127
Colour on visual inspection	No pronounced blue or grey					–
Odour after neutralization with boric acid	No pronounced odour of putrefaction					–

1) Total solids content is an optional requirement.

2) Difference between total solids content and dry rubber content.

3) A minimum mechanical stability may be required which is greater than the minimum value specified.

4) If the latex contains boric acid, the KOH number may exceed the specified value by an amount equivalent to the boric acid content as determined by the method specified in ISO 1802.