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Natural rubber latex concentrate — Centrifuged or creamed, ammonia-preserved types — Specifications

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

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Foreword

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ISO 2004 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 3, *Raw materials (including latex) for use in the rubber industry*.

This fifth edition cancels and replaces the fourth edition (ISO 2004:1997), which has been technically revised.

Natural rubber latex concentrate — Centrifuged or creamed, ammonia-preserved types — Specifications

1 Scope

This International Standard gives specifications for natural rubber latex concentrate types which are preserved wholly or in part with ammonia and which have been produced by centrifuging or creaming.

2 Normative references

The following referenced documents are indispensable for the application 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 35, *Natural rubber latex concentrate — Determination of mechanical stability*

ISO 123, *Rubber latex — Sampling*

ISO 124, *Latex, rubber — Determination of total solids content*

ISO 125, *Natural rubber latex concentrate — Determination of alkalinity*

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

ISO 127, *Rubber, natural latex concentrate — Determination of KOH number*

ISO 506, *Rubber latex, natural, concentrate — Determination of volatile fatty acid number*

ISO 706, *Rubber latex — Determination of coagulum content (sieve residue)*

ISO 2005, *Rubber latex, natural, concentrate — Determination of sludge content*

ISO 7780, *Rubbers and rubber latices — Determination of manganese content — Sodium periodate photometric methods*

ISO 8053, *Rubber and latex — Determination of copper content — Photometric method*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
natural rubber latex concentrate
natural rubber latex containing ammonia and/or other preservatives, which has been subjected to some process of concentration

3.2
type HA natural rubber latex concentrate
centrifuged latex preserved after concentration with ammonia only, with an alkalinity of at least 0,60 % (by mass) calculated with respect to the latex

3.3
type LA natural rubber latex concentrate
centrifuged latex preserved after concentration with ammonia together with other preservatives, with an alkalinity of not more than 0,29 % (by mass) calculated with respect to the latex

3.4
type XA natural rubber latex concentrate
centrifuged latex preserved after concentration with ammonia together with other preservatives, with an alkalinity between 0,30 % and 0,59 % (by mass) calculated with respect to the latex

3.5
creamed type HA natural rubber latex concentrate
creamed latex preserved after concentration with ammonia only, with an alkalinity of at least 0,55 % (by mass) calculated with respect to the latex

3.6
creamed type LA natural rubber latex concentrate
creamed latex preserved after concentration with ammonia together with one or more additional preservatives, with an alkalinity of not more than 0,35 % (by mass) calculated with respect to the latex

4 Requirements

The latex concentrate shall conform to all the requirements in Table 1.

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

5 Sampling

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

Table 1 — Requirements

Characteristic	Type HA	Type LA	Type XA[c]	Type HA creamed	Type LA creamed	Method of test
Total solids content, min., % (by mass)	61,0 or as agreed between the two parties			65,0	65,0	ISO 124
Dry rubber content, min., % (by mass)	60	60	60	64,0	64,0	ISO 126
Non-rubber solids, max.[a], % (by mass)	1,7	1,7	1,7	1,7	1,7	—
Alkalinity (as NH_3), calculated with respect to the latex concentrate, % (by mass)	0,60 min.	0,29 max.	0,30 to 0,59	0,55 min.	0,35 max.	ISO 125
Mechanical stability, min.[b], seconds	650	650	650	650	650	ISO 35
Coagulum content, max., % (by mass)	0,03	0,03	0,03	0,03	0,03	ISO 706
Copper content, max., mg/kg of total solids	8	8	8	8	8	ISO 8053
Manganese content, max., mg/kg of total solids	8	8	8	8	8	ISO 7780
Sludge content, max., % (by mass)	0,10	0,10	0,10	0,10	0,10	ISO 2005
Volatile fatty acid (VFA) number, max.	0,06 or as agreed between the two parties					ISO 506
KOH number, max.	0,70 or as agreed between the two parties					ISO 127

[a] The difference between the total solids content and the dry rubber content.

[b] The mechanical stability time normally stabilizes within 21 days.

[c] XA is equivalent to medium ammonia (MA) latex.

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