SPECIFICATION FOR

CENTRIFUGED AMMONIA-PRESERVED NATURAL RUBBER LATICES

BS 4355 : 1968

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BRITISH STANDARDS INSTITUTION
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THIS BRITISH STANDARD, having been approved by the Rubber Industry Standards Committee and endorsed by the Chairman of the Chemical Divisional Council, was published under the authority of the General Council on 19 September, 1968.

SBN: 580 00320 5

The Institution desires to call attention to the fact that this British Standard does not purport to include all the necessary provisions of a contract.

In order to keep abreast of progress in the industries concerned, British Standards are subject to periodical review. Suggestions for improvements will be recorded and in due course brought to the notice of the committees charged with the revision of the standards to which they refer.

A complete list of British Standards, numbering over 4000, fully indexed and with a note of the contents of each, will be found in the British Standards Yearbook, price 15s. The BS Yearbook may be consulted in many public libraries and similar institutions.

This standard makes reference to the following British Standards:

BS 1672. Methods of testing rubber latex.
Part 1. Sampling and basic tests.
Part 2. Chemical and physical tests.

British Standards are revised, when necessary, by the issue either of amendment slips or of revised editions. It is important that users of British Standards should ascertain that they are in possession of the latest amendments or editions.

The following BSI references relate to the work on this standard:
Committee reference RUC/28 Draft for comment 67/29268

CO-OPERATING ORGANIZATIONS

The Rubber Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

*British Association of Synthetic Rubber Manufacturers
*Federation of British Rubber and Allied Manufacturers
*Institution of the Rubber Industry
Ministry of Technology
Natural Rubber Bureau
*Natural Rubber Producer's Research Association
Rubber and Plastics Research Association of Great Britain
*Rubber Grower's Association
Society of Motor Manufacturers and Traders Ltd.
Tyre Manufacturers Conference Ltd.

The scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

British Latex Foam Manufacturers' Association
British Rubber and Resin Adhesive Manufacturers' Association
British Seamless Rubber and Plastics Manufacturers' Association

BRITISH STANDARD SPECIFICATION FOR

CENTRIFUGED AMMONIA-PRESERVED NATURAL RUBBER LATICES

FOREWORD

This British Standard has been prepared under the authority of the Rubber Industry Standards Committee.

This British Standard describes the requirements for natural rubber latices which are preserved wholly or in part with ammonia and which have been concentrated by centrifuging. Consideration has been given to the work being done in the field by ISO/TC 45—Rubber—of the International Organization for Standardization (ISO). It does not apply to latices which have been concentrated by creaming or evaporation, or to latices from natural sources other than Hevea brasiliensis, or to latices of synthetic rubber, compounded latex, vulcanized latex or artificial dispersions of rubber.

Centrifuged, ammonia-preserved, natural rubber latices are processed into various products, for example foam rubber, thread and dipped articles. The stability required of the latex differs, to some extent, according to the process in which the latex is used. Consequently, for some applications a minimum mechanical stability is required which is greater than the minimum value specified in the British Standard. Similarly for some applications the maximum volatile fatty acid number (VFA) and KOH number required may be lower than the values specified.

SPECIFICATION

1. SCOPE

This British Standard covers requirements for centrifuged natural rubber latices of the following types:

HA latex. Latex preserved with ammonia only or with formaldehyde followed by ammonia, with an alkalinity of at least 1·6%.

LA latex. Latex preserved with ammonia together with other preservatives, with an alkalinity of not more than 0·8%.

XA latex. Latex preserved with ammonia together with other preservatives, with an alkalinity above 0·8%.

2. REQUIREMENTS

The latex shall conform to the requirements given in Table 1.

If the latex contains preservatives other than ammonia or formaldehyde the type and approximate quantity of such preservative shall be stated. The latex shall not contain fixed alkali added at any stage in its production.

TABLE 1. REQUIREMENTS

	HA Latex	LA Latex	XA Latex	Method of test
Total solids content, min., %	61·5	61·5	61·5	BS 1672, Part 1*
Dry rubber content, min., %	60·0	60·0	60·0	BS 1672, Part 1
Non-rubber solids, max., %	2·0	2·0	2·0	†
Alkalinity as ammonia, % of water content	1·6 min.	0·8 max.	greater than 0·8	BS 1672, Part 1
Mechanical stability, min., seconds	540	540	540	BS 1672, Part 2*
Coagulum content, max., % of total solids	0·08	0·08	0·08	BS 1672, Part 2
Copper content, max., p.p.m. of total solids	8·0	8·0	8·0	BS 1672, Part 2
Manganese content, max., p.p.m. of total solids	8·0	8·0	8·0	BS 1672, Part 2
Sludge content, max., %	0·10	0·10	0·10	In preparation
Volatile fatty acid number (VFA), max.	0·20	0·20	0·20	BS 1672, Part 2
KOH number‡, max.	1·0	1·0	1·0	BS 1672, Part 2
Colour on visual inspection	no pronounced blue or grey			—
Odour after neutralization with boric acid	no pronounced odour of putrefaction			In preparation

* BS 1672, 'Methods of testing rubber latex'. Part 1, 'Sampling and basic tests'. Part 2, 'Chemical and physical tests'.

† Difference between total solids content and dry rubber content.

‡ In the case of latices containing boric acid the KOH number may exceed the specified value by an amount equivalent to the boric acid content.

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