

INTERNATIONAL STANDARD

ISO 13773

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Rubber — Polychloroprene latex — Determination of alkalinity

Caoutchouc — Latex de polychloroprène — Détermination de l'alcalinité

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 13773 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*.

Annexes A and B of this International Standard are for information only.

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Rubber – Polychloroprene latex – Determination of alkalinity

WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

1 Scope

This International Standard specifies a method for the determination of the alkalinity of polychloroprene latex prepared by the polymerization of chloroprene in an alkaline emulsion. It is not suitable for polychloroprene latex prepared in a non-ionic emulsion, for natural rubber latex concentrate nor necessarily for synthetic rubber latices other than polychloroprene.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. 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 indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 123:1985, *Rubber latex — Sampling*.

ISO 976:1996, *Rubber and plastics — Polymer dispersions and rubber latices — Determination of pH*.

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*.

3 Principle

A test portion of the latex is titrated electrometrically against hydrochloric acid to the second point of inflexion of the titration curve (pH in the range 4 to 5). The alkalinity is calculated from the amount of acid required.

The alkalinity is commonly expressed as its two component parts in practice, i.e. the amount of acid required to the first point of inflexion (pH in the range 10 to 11) which measures the amount of free alkali (the alkaline reserve) and the amount of additional acid required to the second point of inflexion which is a measure of the amount of saponified anionic organic surfactants in the latex, usually referred to as the "delta titre".

NOTE — When using a pH-meter to control the titration, it was formerly the practice to define the points of inflexion as pH 10,5 and 4,5. However since these do not always correspond to the points of inflexion the results obtained would be approximate.

The results are expressed in millimoles of hydrochloric acid per 100 g of latex.

4 Reagents

For the analysis, use only reagents of recognized analytical grade and only distilled water free of dissolved carbon dioxide, or water of equivalent purity (grade 3 as defined in ISO 3696).