



**International
Standard**

ISO 16947

**Natural rubber latex concentrate —
Determination of zinc oxide
stability time (ZST)**

*Concentré de latex de caoutchouc naturel — Détermination du
temps de stabilité de l'oxyde de zinc (ZST)*

**First edition
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Contents

	Page
Foreword.....	iv
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Principle.....	1
5 Reagents.....	2
6 Apparatus.....	2
7 Sampling.....	2
8 Procedure.....	2
9 Expression of results.....	3
10 Precision.....	3
11 Test report.....	4
Annex A (informative) Precision.....	5
Bibliography.....	7

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document 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*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Natural rubber latex concentrate — Determination of zinc oxide stability time (ZST)

WARNING — Persons using this document should be familiar with normal laboratory practice. This document 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 determine the applicability of regulatory limitations prior to use.

1 Scope

This document specifies a method for determining the zinc oxide stability time (ZST) of natural rubber latex concentrate.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 976, *Rubber and plastics — Polymer dispersions and rubber latices — Determination of pH*

ISO 3310-1, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1 zinc oxide stability time ZST

time required to initiate visible flocculation after the addition of zinc oxide when the latex is stirred at high speed

Note 1 to entry: The zinc oxide stability time is expressed in seconds.

4 Principle

A test portion, under specified alkalinity, dilution and temperature is stirred at high speed after the addition of zinc oxide until visible flocculation is observed. The time required to initiate visible flocculation is recorded, this being regarded as a measure of ZST.