

INTERNATIONAL STANDARD

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Plastics — Epoxy resins and related materials — Determination of total saponifiable chlorine

*Plastiques — Résines époxydes et matières apparentées — Dosage du
chlore saponifiable total*

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International Standard ISO 13651 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 12, *Thermosetting materials*.

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Plastics – Epoxy resins and related materials – Determination of total saponifiable chlorine

1 Scope

This International Standard specifies a method for the determination of the total saponifiable chlorine contained in epoxy resins and related materials.

The amount of chlorine measured by the method, referred to as total saponifiable chlorine, includes saponifiable organic chlorine and inorganic chlorine.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitutes provisions of this International Standard. At the time of publication, the edition indicated was valid. 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 edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

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

3 Definition

For the purposes of this International Standard, the following definition applies:

3.1 total saponifiable chlorine content: The ratio of the mass of all saponifiable organic and inorganic chlorine in a test portion of epoxy resin or related material to the mass of the test portion.

NOTE 1 "Inorganic chlorine content" is defined in ISO 11376:—, *Plastics — Epoxy resins and glycidyl esters — Determination of inorganic chlorine*.

4 Principle

A test portion is dissolved in diethylene glycol monobutyl ether and the solution saponified with an alcoholic solution of potassium hydroxide by heating under reflux. The total saponifiable chlorine content is then determined by potentiometric titration of the solution with silver nitrate solution.

5 Reagents

During the analysis, use only reagents of recognized analytical grade and only water of grade 3 purity as defined in ISO 3696.

1) To be published.