

INTERNATIONAL
STANDARD

ISO
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Third edition
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**Plastics — Vinyl chloride homopolymers
and copolymers — Determination of
chlorine content**

*Plastiques — Homopolymères et copolymères de chlorure de vinyle —
Dosage du chlore*



Reference number
ISO 1158:1998(E)

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 1158 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 9, *Thermoplastic materials*.

This third edition cancels and replaces the second edition (ISO 1158:1984), which has been technically revised.

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Plastics — Vinyl chloride homopolymers and copolymers — Determination of chlorine content

WARNING — All precautions shall be taken, particularly those mentioned in the text of the present International Standard, to protect operators from risks presented by both methods.

1 Scope

This International Standard specifies two methods for the determination of the chlorine content of homopolymers and copolymers of vinyl chloride, free from plasticizers or additives, namely:

- method A (combustion in a bomb);
- method B (combustion in a flask).

2 Principle

A test portion is oxidised with sodium peroxide (method A) or gaseous oxygen (method B) followed by potentiometric or volumetric titration of the resulting chlorides.

3 Reagents

During the analysis, use only reagents of recognized grade, and only distilled water or water of equivalent purity.

3.1 Silver nitrate, standard volumetric solution, $c(\text{AgNO}_3) = 0,1 \text{ mol/l}$ or $0,05 \text{ mol/l}$.

3.2 Nitric acid solution, $c(\text{HNO}_3) = 2 \text{ mol/l}$.

For method A only:

3.3 Nitric acid, concentrated.

3.4 Sodium peroxide, granulated.

3.5 Starch, sucrose or ethylene glycol, as combustion aids.