

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 1158

PLASTICS

DETERMINATION OF CHLORINE IN VINYL CHLORIDE POLYMERS AND COPOLYMERS

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BRIEF HISTORY

The ISO Recommendation R 1158, *Plastics – Determination of chlorine in vinyl chloride polymers and copolymers*, was drawn up by Technical Committee ISO/TC 61, *Plastics*, the Secretariat of which is held by the American National Standards Institute (ANSI).

Work on this question led to the adoption of a Draft ISO Recommendation.

In July 1965, this Draft ISO Recommendation (No. 826) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Argentina	Germany	Romania
Australia	Greece	Spain
Austria	Hungary	Sweden
Belgium	India	Switzerland
Brazil	Ireland	Turkey
Canada	Israel	U.A.R.
Chile	Italy	United Kingdom
Colombia	Japan	U.S.A.
Czechoslovakia	Netherlands	U.S.S.R.
Finland	New Zealand	
France	Poland	

No Member Body opposed the approval of the Draft.

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in January 1970, to accept it as an ISO RECOMMENDATION.

PLASTICS

**DETERMINATION OF CHLORINE
IN VINYL CHLORIDE POLYMERS AND COPOLYMERS**

1. SCOPE

This ISO Recommendation describes two methods for the determination of the chlorine in polymers 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

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

3. REAGENTS

All the reagents must be of analytical reagent quality. Water should be distilled water or water of at least equivalent purity.

- 3.1 *Silver nitrate*, 0.1 N standard solution.
- 3.2 *Nitric acid*, 2 N solution.

For method A only :

- 3.3 *Nitric acid*, concentrated.
- 3.4 *Sodium peroxide*, granulated.
- 3.5 *Starch* or *sucrose* as combustion aids.

For method B only :

- 3.6 *Oxygen*, gaseous.
- 3.7 *Sodium nitrate*.
- 3.8 *Potassium hydroxide* solution, 100 g/l.
- 3.9 *Hydrogen peroxide* solution, 300 g/l.