
INTERNATIONAL STANDARD



1060 / II

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**Plastics — Homopolymer and copolymer resins of
vinyl chloride —
Part II : Determination of properties**

*Plastiques — Résines d'homopolymères et de copolymères de chlorure de vinyle —
Partie II : Détermination des propriétés*

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 1060/II was developed by Technical Committee ISO/TC 61, *Plastics*, and was circulated to the member bodies in October 1976.

It has been approved by the member bodies of the following countries :

Australia	Hungary	Portugal
Austria	India	Romania
Belgium	Iran	South Africa, Rep. of
Brazil	Israel	Spain
Canada	Italy	Sweden
Chile	Korea, Rep. of	Switzerland
Czechoslovakia	Mexico	Turkey
Finland	Netherlands	United Kingdom
France	New Zealand	U.S.A.
Germany, F.R.	Poland	Yugoslavia

No member body expressed disapproval of the document.

Plastics — Homopolymer and copolymer resins of vinyl chloride —

Part II : Determination of properties

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the preparation of the sample and the test methods to be used for the determination of the properties of homopolymers and copolymers of vinyl chloride.

ISO 1060/I¹⁾ specifies a method of designation of these products.

2 REFERENCES

ISO 60, *Plastics — Determination of apparent density of material that can be poured from a specified funnel.*

ISO 174, *Plastics — Determination of viscosity number of PVC resins in dilute solution.*

ISO/R 182, *Plastics — Determination of the thermal stability of polyvinyl chloride and related copolymers and their compounds by splitting off of hydrogen chloride.*

ISO 291, *Plastics — Standard atmospheres for conditioning and testing.*

ISO 1068, *Plastics — PVC resins — Determination of compacted apparent bulk density.*

ISO 1158, *Plastics — Vinyl chloride homopolymers and copolymers — Determination of chlorine.*

ISO 1159, *Plastics — Vinyl chloride-vinyl acetate copolymers — Determination of vinyl acetate.*

ISO 1264, *Plastics — PVC resins — Determination of pH of aqueous extract.*

ISO 1269, *Plastics — PVC resins — Determination of volatile matter (including water).*

ISO 1270, *Plastics — PVC resins — Determination of ash and sulphated ash.*

ISO 1624, *Plastics — Vinyl chloride homopolymer and copolymer resins — Sieve analysis in water.*

ISO 2555, *Resins in the liquid state or as emulsions or dispersions — Determination of Brookfield RV viscosity.*

ISO 4574, *Plastics — PVC resins for general use — Determination of hot plasticizer absorption.*

ISO 4575, *Plastics — PVC pastes — Determination of apparent viscosity using the Severs rheometer.*

ISO 4608, *Plastics — PVC resins for general use — Determination of plasticizer absorption at room temperature.*

ISO 4610, *Plastics — Vinyl chloride homopolymer and copolymer resins — Sieve analysis using an air-jet sieve apparatus.*

ISO 4612, *Plastics — PVC paste resins — Preparation of a paste.²⁾*

ISO 6186, *Plastics — Homopolymer and copolymer resins of vinyl chloride — Determination of flowability.²⁾*

3 SAMPLE

3.1 Sampling

Take a representative sample of the homopolymer or copolymer as delivered.

3.2 Conditioning

Condition the sample in accordance with the specified test method. If no specifications concerning conditioning are given in the test method, condition the sample for at least 24 h at 23 °C and 50 % relative humidity in accordance with ISO 291.

3.3 Test conditions

Conduct tests in the standard laboratory atmosphere of 23 °C and 50 % relative humidity in accordance with ISO 291, unless otherwise specified in the test method.

1) ISO 1060/I will result from the combination of ISO 1060-1975 with ISO 2798-1974.

2) At present at the stage of draft.

4 TEST METHODS

Property	Method	Unit	Remarks
Apparent bulk density	ISO 60	g/cm ³	See note 1.
Compacted apparent bulk density	ISO 1068	g/cm ³	
Viscosity number	ISO 174	cm ³ /g	See note 1.
Sieve analysis – in water	ISO 1624	%	See note 1.
– dry sieve analysis	ISO 4610		
Flowability	ISO 6186		
Chlorine content	ISO 1158	%	See note 1.
Vinyl acetate content	ISO 1159	%	
Volatile matter (including water)	ISO 1269	%	
pH of aqueous extract	ISO 1264		
Thermal stability	ISO/R 182	min	See note 2.
Ash and sulphated ash	ISO 1270	%	
Plasticizer absorption at room temperature	ISO 4608	p.h.r.	See note 1.
Hot plasticizer absorption	ISO 4574	p.h.r./min	
Preparation of a paste	ISO 4612		
Apparent viscosity of a paste using a Severs rheometer	ISO 4575		
Apparent viscosity of a paste using a rotating viscometer	ISO 2555	Pa·s	See note 1.
“Fish-eyes”			See note 3.
Vinyl chloride monomer content		mg/kg (ppm)	

NOTES

- 1 Property used for designation.
- 2 Not applicable to all resins.
- 3 At present no test method exists.

• **fish-eye** : As applied to a defect, a small globular mass which has not blended completely into the surrounding material and is particularly evident in a transparent or translucent material. (Definition taken from ISO 472.)