International Standard 1060/1

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Plastics — Homopolymer and copolymer resins of vinyl chloride — Part 1: Designation

Plastiques — Résines d'homopolymères et de copolymères de chlorure de vinyle — Partie 1: Désignation

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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 1060/1 was developed by Technical Committee ISO/TC 61, *Plastics,* and was circulated to the member bodies in June 1980.

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

Australia	France	Poland
Austria	Germany, F.R.	Romania
Belgium	Hungary	South Africa, Rep. of
Brazil	India	Spain
Canada	Ireland	Sweden
China	Italy	Switzerland
Czechoslovakia	Japan	USA
Egypt, Arab Rep. of	Korea, Rep. of	USSR
Finland	Mexico	

The member body of the following country expressed disapproval of the document on technical grounds:

Netherlands

This International Standard cancels and replaces International Standards ISO 1060-1975 and ISO 2798-1974, of which it constitutes a technical revision.

Printed in Switzerland

Plastics — Homopolymer and copolymer resins of vinyl chloride — Part 1: Designation

1 Scope and field of application

This part of ISO 1060 specifies a method of designation of homopolymer and copolymer resins of vinyl chloride as a function of their chemical nature, their poly(vinyl chloride) content (in the case of the copolymers), their polymerization process, their final general utilization, and a number of properties. Indications concerning special properties can also be added.

Specifications for specific resins should be based on this designation.

ISO 1060/2 specifies the preparation of the sample and the test methods to be used for the determination of the properties specified in this International Standard and of additional properties.

2 References

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

ISO 174, *Plastics — Homopolymer and copolymer resins of vinyl chloride — Determination of viscosity number in dilute solution.*

ISO 1043, *Plastics — Symbols.*

ISO 1060/2, *Plastics — Homopolymer and copolymer resins of vinyl chloride — Part 2: Determination of properties.*

ISO 1158, *Plastics — Homopolymers and copolymers of vinyl chloride — Determination of chlorine.*

ISO 1624, *Plastics — Homopolymer and copolymer resins of vinyl chloride — Determination of particle size distribution by sieve analysis in water.*

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

ISO 4575, *Plastics — Polyvinyl chloride 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 4612, *Plastics — PVC paste resins — Preparation of a paste.*

3 Definition

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

homopolymer and copolymer resins of vinyl chloride: Resins in powder form consisting respectively of

— a homopolymer of vinyl chloride ($CH_2 = CHCl$ monomer);

— a copolymer of vinyl chloride with one or more other monomers, in which vinyl chloride is the main constituent.

This powder is intended to be used with the necessary additives to form a compound used in the production of thermoplastics. It can have a very low content of non-polymerized substances used in the polymerization process (for example emulsifying or suspension agents, catalyst residues) or deliberately added in the course of this process as part of the polymerization system to stabilize the resin (prestabilizers).

NOTE — The designation can also be used for homogeneous mixtures, prepared mechanically, of several vinyl chloride homopolymers or of a homopolymer of vinyl chloride with one or more polymers or copolymers of other monomers in which the poly(vinyl chloride) is the main element, provided that it is clearly shown that the designation refers to a "mixture".

4 Designation system

Homopolymer and copolymer resins of vinyl chloride are designated by the number of this International Standard and 3 or 4 data blocks (separated from each other by a comma) providing the following information:

4.1 Data block 1

The polymer is identified by its symbol according to ISO 1043.

For copolymer resins the symbol is followed by an interval, then by a two-digit number indicating the PVC content. The latter is obtained by determining the chlorine content in accordance with ISO 1158 and using the table in the annex which shows the relationship between chlorine content and PVC content.