
**Plastics — Ethylene-vinyl acetate
(EVAC) moulding and extrusion
materials —**

**Part 1:
Designation system and basis for
specifications**

*Plastiques — Matériaux à base de copolymères éthylène/acétate de
vinyle (EVAC) pour moulage et extrusion —*

Partie 1: Système de désignation et base de spécification





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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

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

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

This first edition of ISO 21301-1 cancels and replaces the second edition of ISO 4613-1:1993, which has been technically revised. The main changes compared to the previous edition are as follows:

- a new designation system has been introduced;
- the range of MFR has been added.

The revised designation system is published under a new ISO number, as many existing documents refer to ISO 4613-1. If the existing ISO 4613-1 would be replaced by the new designation system, these documents would refer to the incorrect designation system.

The new designation system according to ISO 21301-1 is intended to replace gradually any designation system according to ISO 4613-1.

A list of all parts in the ISO 21301 series can be found on the ISO website.

Introduction

ISO 4613-1 (revised as ISO 21301-1) is complex and does not fit with daily practice anymore. In practice, ISO 1043 (all parts) and ISO 11469 are, in combination, “improperly” being used as a designation system for, for example, marking. The aim of this revision is to simplify the data block system and to connect more to ISO 1043 (all parts) and ISO 11469, where the first two blocks are used for generic identification and marking of products.

Plastics — Ethylene-vinyl acetate (EVAC) moulding and extrusion materials —

Part 1: Designation system and basis for specifications

1 Scope

1.1 This document establishes a system of designation for ethylene-vinyl acetate thermoplastic material, which can be used as the basis for specifications.

1.2 The types of ethylene-vinyl acetate (EVAC) plastic are differentiated from each other by a classification system based on appropriate levels of the following designatory properties:

- a) vinyl acetate content;
- b) melt mass-flow rate;

and on information about the intended application and/or method of processing, important properties, additives, colorants, fillers and reinforcing materials.

1.3 This document is applicable to all ethylene vinyl acetate copolymers containing from a mass fraction from 3 % to 50 % (approximately 25 % molar) of vinyl acetate.

It applies to materials ready for normal use in the form of powder, granules or pellets and to materials unmodified or modified by colorants, additives, fillers, etc.

1.4 It is not intended to imply that materials having the same designation give necessarily the same performance. This document does not provide engineering data, performance data or data on processing conditions which can be required to specify a material for a particular application and/or method of processing.

If such additional properties are required, they are determined in accordance with the test methods specified in ISO 21301-2, if suitable.

1.5 In order to specify a thermoplastic material for a particular application or to ensure reproducible processing, additional requirements can be given in data block 5 (see [4.1](#)).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1043-1, *Plastics — Symbols and abbreviated terms — Part 1: Basic polymers and their special characteristics*

ISO 1043-2, *Plastics — Symbols and abbreviated terms — Part 2: Fillers and reinforcing materials*

ISO 8985, *Plastics — Ethylene/vinyl acetate copolymer (EVAC) thermoplastics — Determination of vinyl acetate content*