



NSAI
Standards

Irish Standard
I.S. EN ISO 24024-1:2021

Plastics - Homopolymer and copolymer
resins of vinyl chloride - Part 1:
Designation system and basis for
specifications (ISO 24024-1:2021)

I.S. EN ISO 24024-1:2021

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN ISO 24024-1:2021

Published:

2021-02-24

*This document was published
under the authority of the NSAI
and comes into effect on:*

2021-03-14

ICS number:

83.080.20

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN ISO 24024-1:2021 is the adopted Irish version of the European Document EN ISO 24024-1:2021, Plastics - Homopolymer and copolymer resins of vinyl chloride - Part 1: Designation system and basis for specifications (ISO 24024-1:2021)

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 24024-1

February 2021

ICS 83.080.20

Supersedes EN ISO 1060-1:1999

English Version

**Plastics - Homopolymer and copolymer resins of vinyl
chloride - Part 1: Designation system and basis for
specifications (ISO 24024-1:2021)**

Plastiques - Résines d'homopolymères et de
copolymères de chlorure de vinyle - Partie 1: Système
de désignation et base de spécifications (ISO 24024-
1:2021)

Kunststoffe - Homo- und Copolymere des Vinylchlorids
- Teil 1: Bezeichnungssystem und Basis für
Spezifikationen (ISO 24024-1:2021)

This European Standard was approved by CEN on 8 February 2021.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 24024-1:2021 (E)

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 24024-1:2021) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 "Plastics" the secretariat of which is held by NBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2021, and conflicting national standards shall be withdrawn at the latest by August 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 1060-1:1999.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 24024-1:2021 has been approved by CEN as EN ISO 24024-1:2021 without any modification.

This page is intentionally left blank

INTERNATIONAL STANDARD

**ISO
24024-1**

First edition
2021-02

Plastics — Homopolymer and copolymer resins of vinyl chloride —

Part 1: Designation system and basis for specifications

*Plastiques — Résines d'homopolymères et de copolymères de chlorure
de vinyle —*

Partie 1: Système de désignation et base de spécifications



Reference number
ISO 24024-1:2021(E)

© ISO 2021

ISO 24024-1:2021(E)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Designation and specification system	2
4.1 General.....	2
4.2 Data block 1	2
4.3 Data block 2	3
4.4 Data block 3	3
4.5 Data block 4	3
4.5.1 General.....	3
4.5.2 Reduced viscosity.....	4
4.5.3 Apparent density	4
4.5.4 Retention on a 63 µm sieve.....	5
4.5.5 Plasticizer absorption at room temperature (for general purpose resins and filler resins only)	5
4.5.6 Viscosity and type of rheological behaviour of a standard paste (for paste resins only)	6
4.6 Data block 5	7
5 Examples of designations	7

ISO 24024-1:2021(E)

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 249, *Plastics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition of ISO 24024-1 cancels and replaces ISO 1060-1:1998, which has been technically revised.

The main changes compared to the previous edition are as follows:

- the positions of Data block 2 and Data block 4 in the old designation system have been changed;
- the last designation example has been deleted.

A list of all parts in the ISO 24024 series can be found on the ISO website.

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.

Plastics — Homopolymer and copolymer resins of vinyl chloride —

Part 1: Designation system and basis for specifications

1 Scope

1.1 This document establishes a system of designation for vinyl chloride thermoplastic resins which can be used as the basis for specifications.

1.2 The types of vinyl chloride plastics are differentiated from each other by a classification system based on appropriate levels of the designatory properties:

- a) reduced viscosity;
- b) apparent density;
- c) retention on a 63 µm mesh sieve;
- d) plasticizer absorption at room temperature (for general-purpose resins);
- e) the viscosity and the type of rheological behaviour of a standard paste (for paste resins only);

and on information about basic polymer parameters, polymerization processes and intended applications.

1.3 This document is applicable to resins in powder form which consist of homopolymers of the monomer vinyl chloride and copolymers, terpolymers, etc., of vinyl chloride with one or more other monomers, but where vinyl chloride is the main constituent. The resins can contain small amounts of non-polymerized substances (e.g. emulsifying or suspending agents, catalyst residues, etc.) and other substances added during the course of polymerization.

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 24024-2, if suitable.

1.5 In order to specify a resin 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*

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-