

**Plastid. Löögikindlast akrüülnitril-stüreen-
akrülaatkopolümeerist (ASA, AES, ASC)
vormimis- ja ekstrusioonimaterjalid. Osa 1:
Tähistussüsteem ja alus tehniliste andmete
jaoks**

Plastics - Acrylonitrile/styrene/acrylate (ASA),
acrylonitrile (ethylene-propylene-diene)-styrene
(AEPDS) and acrylonitrile-(chlorinated
polyethylene)styrene (ACS) moulding and extrusion
materials - Part 1: Designation system and basis for
specifications

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 6402-1:2003 sisaldab Euroopa standardi EN ISO 6402-1:2002 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 18.02.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 6402-1:2003 consists of the English text of the European standard EN ISO 6402-1:2002.</p> <p>This document is endorsed on 18.02.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This part of ISO 6402 establishes a system of designation for acrylonitrile-styrene-acrylate (ASA), acrolonitrile-(ethylene-propylene-diene)styrene (AEPDS) and acrylonitrile-(chlorinated polyethylene)-styrene (ACS) moulding and extrusion materials, which may be used as the basis for specifications</p>	<p>Scope:</p> <p>This part of ISO 6402 establishes a system of designation for acrylonitrile-styrene-acrylate (ASA), acrolonitrile-(ethylene-propylene-diene)styrene (AEPDS) and acrylonitrile-(chlorinated polyethylene)-styrene (ACS) moulding and extrusion materials, which may be used as the basis for specifications</p>
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ICS 83.080.20

Võtmesõnad:

English version

Plastics

Acrylonitrile-styrene-acrylate (ASA), acrylonitrile-(ethylene-propylene-diene)-styrene (AEPDS) and acrylonitrile-(chlorinated polyethylene)-styrene (ACS) moulding and extrusion materials

Part 1: Designation system and basis for specifications
(ISO 6402-1 : 2002)

Plastiques – Matériaux pour moulage et extrusion à base d'acrylonitrile-styrène-acrylate (ASA), d'acrylonitrile-(éthylène-propylène-diène)-styrène (AEPDS) et d'acrylonitrile-(polyéthylène chloré)-styrène (ACS) – Partie 1: Système de désignation et base de spécifications (ISO 6402-1 : 2002)

Kunststoffe – Acrylnitril-Styrol-Acrylester (ASA)-, Acrylnitril-(Ethylen-Propylen-Dien)-Styrol (AEPDS)- und Acrylnitril-(Chloriertes Polyethylen)-Styrol (ACS)-Formmassen – Teil 1: Bezeichnungssystem und Basis für Spezifikationen (ISO 6402-1 : 2002)

This European Standard was approved by CEN on 2002-08-25.

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 Management Centre or to any CEN member.

The European Standards exist 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 Management Centre has the same status as the official versions.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Management Centre: rue de Stassart 36, B-1050 Brussels

Foreword

International Standard

ISO 6402-1 : 2002 Plastics – Acrylonitrile-styrene-acrylate (ASA), acrylonitrile-(ethylene-propylene-diene)-styrene (AEPDS) and acrylonitrile-(chlorinated polyethylene)-styrene (ACS) moulding and extrusion materials – Part 1: Designation system and basis for specifications,

which was prepared by ISO/TC 61 'Plastics' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 249 'Plastics', the Secretariat of which is held by IBN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by April 2003 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 6402-1 : 2002 was approved by CEN as a European Standard without any modification.

1 Scope

1.1 This part of ISO 6402 establishes a system of designation for acrylonitrile-styrene-acrylate (ASA), acrylonitrile-(ethylene-propylene-diene)-styrene (AEPDS) and acrylonitrile-(chlorinated polyethylene)-styrene (ACS) moulding and extrusion materials, which may be used as the basis for specifications.

1.2 The types of ASA, AEPDS and ACS plastic are differentiated from each other by a classification system based on appropriate levels of the designatory properties

- a) Vicat softening temperature
- b) melt volume-flow rate
- c) Charpy notched impact strength
- d) tensile modulus

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

1.3 This part of ISO 6402 is applicable to all ASA, AEPDS and ACS materials consisting of a continuous phase based mainly on styrene-acrylonitrile (SAN) copolymer (in which the styrene component may be styrene itself and/or alkyl-substituted styrene) and a dispersed elastomeric phase based mainly on

acrylate (ASA materials),

ethylene-propylene-diene (EPDM) (AEPDS materials),

chlorinated polyethylene (ACS materials),

with or without other components, in such quantities as specified in data block 1.

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

ISO 6402-1:2002 does not apply to materials

- a) containing less than 10 % by mass of acrylonitrile in the continuous phase;
- b) with a Charpy notched impact strength of less than 3 kilojoules per square metre;
- c) containing less than 50 % by mass of acrylate in the elastomeric phase in the case of ASA;
- d) containing less than 50 % by mass of ethylene-propylene-diene in the elastomeric phase in the case of AEPDS;
- e) containing less than 50 % by mass of chlorinated polyethylene in the elastomeric phase in the case of ACS.

1.4 It is not intended to imply that materials having the same designation give necessarily the same performance. This part of ISO 6402 does not provide engineering data, performance data or data on processing conditions which may be required to specify a material for a particular application and/or method of processing.

If such additional properties are required, they shall be determined in accordance with the test methods specified in part 2 of this International Standard, if suitable.

1.5 In order to specify a thermoplastic material for particular application or to ensure reproducible processing, additional requirements may be given in data block 5 (see 3.1).

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 6402. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 6402 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

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

ISO 6402-2, *Plastics — Acrylonitrile-styrene-acrylate (ASA), acrylonitrile-(ethylene-propylene-diene)-styrene (AEPDS) and acrylonitrile-(chlorinated polyethylene)-styrene (ACS) moulding and extrusion materials — Part 2: Preparation of test specimens and determination of properties*

3 Designation system

3.1 General

The designation system for thermoplastics is based on the following standard pattern:

Designation						
Description block (optional)	Identity block					
	International Standard number block	Individual-item block				
		Data block 1	Data block 2	Data block 3	Data block 4	Data block 5