SLOVENSKI STANDARD
SIST EN ISO 7686:2005

01-september-2005

Nadomeġļa:
SIST EN 578:1997

Polimerne cevi in fitingi – Ugotavljanje svetlobne prepustnosti (ISO 7686:2005)

Plastics pipes and fittings - Determination of opacity (ISO 7686:2005)

Rohre und Formstücke aus Kunststoffen - Bestimmung der Opazität (ISO 7686:2005)

Tubes et raccords en matieres plastiques - Détermination de l'opacité (ISO 7686:2005)

Ta slovenski standard je istoveten z: **EN ISO 7686:2005**

ICS:

23.040.20	Cevi iz polimernih materialov	Plastics pipes
23.040.45	Fitingi iz polimernih materialov	Plastics fittings

SIST EN ISO 7686:2005 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 7686

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ICS 23.040.20; 23.040.45

Supersedes EN 578:1993

English Version

Plastics pipes and fittings - Determination of opacity (ISO 7686:2005)

Tubes et raccords en matières plastiques - Détermination de l'opacité (ISO 7686:2005)

Rohre und Formstücke aus Kunststoffen - Bestimmung der Opazität (ISO 7686:2005)

This European Standard was approved by CEN on 20 June 2005.

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Foreword

This document (EN ISO 7686:2005) has been prepared by Technical Committee ISO/TC 138 "Plastics pipes, fittings and valves for the transport of fluids" in collaboration with Technical Committee CEN/TC 155 "Plastics piping systems and ducting systems", the secretariat of which is held by NEN.

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of an identical text or by endorsement, at the latest by January 2006, and conflicting national standards shall be withdrawn at the latest by January 2006.

This document supersedes EN 578:1993.

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Endorsement notice

The text of ISO 7686:2005 has been approved by CEN as EN ISO 7686:2005 without any modifications.

INTERNATIONAL STANDARD

ISO 7686

Second edition
2005-07-01

Plastics pipes and fittings — Determination of opacity

Tubes et raccords en matières plastiques — Détermination de l'opacité

Reference number
ISO 7686:2005(E)

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 7686 was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 5, *General properties of pipes, fittings and valves of plastic materials and their accessories — Test methods and basic specifications*.

This second edition cancels and replaces the first edition (ISO 7686:1992), of which it constitutes a technical revision. It incorporates the following modifications:

— a note giving the principal reason for measurement of opacity of products has been added to the scope;

— the use of an integrating sphere for measurement is given as an option;

— the incident beam is defined with respect to the size of the test piece and the entrance port of the integrating sphere;

— production of test pieces from the sample is prescribed in greater detail;

— determination of opacity from a series of measurements on the test pieces is prescribed;

— editorial changes have been introduced.

Plastics pipes and fittings — Determination of opacity

1 Scope

This International Standard specifies a method for the determination of the opacity of plastics pipes and fittings.

Annex A gives guidance on the light transmission of opaque pipes and fittings.

NOTE It is necessary for a pipe or fitting used for water supply which is exposed to visible light during service to be sufficiently opaque to prevent algae growth.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
opacity
light energy which has passed through the wall of the test piece, expressed as a percentage of the incident light energy on the test piece

2.2
light intensity
I
light energy which has passed through the test piece

2.3
maximum light intensity
I_m
maximum light energy received from the light source

3 Principle

The scattered and unscattered light energy of a wavelength of 540 nm to 560 nm passing through a test piece cut from a pipe or fitting is measured and expressed as a percentage of the incident light energy on the test piece.

4 Apparatus

4.1 Photoelectric cell, used such that the response of the reading or recording apparatus is a linear function of the light intensity, from the maximum intensity I_m down to at least 0,01 I_m. The detector shall be mounted at right angles to the optical axis to ensure that all light passing through the sample is measured. An integrating sphere may be used to facilitate measurements. The incident beam shall be centred on the entrance port and pass along the sphere's diameter.