Products used for treatment of water intended for human consumption - Supporting and filtering materials - Methods of test

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12902:2000 sisaldab Euroopa standardi EN 12902:1999 ingliskeelset teksti.	This Estonian standard EVS-EN 12902:2000 consists of the English text of the European standard EN 12902:1999.
Standard on kinnitatud Eesti Standardikeskuse 11.01.2000 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 11.01.2000 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

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English version

Products used for treatment of water intended for human consumption - Inorganic supporting and filtering materials - Methods of test

Produits utilisés pour le traitement de l'eau destinée à la consommation humaine - Matériaux inorganiques de filtration et de support - Méthodes d'essai

Produkte zur Aufbereitung von Wasser für den menschlichen Gebrauch - Anorganische Filterhilfs und Filtermaterialien - Prüfverfahren

This European Standard was approved by CEN on 16 July 1999.

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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 Central Secretariat has the same status as the official versions.

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

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 164 "Water supply", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by February 2000, and conflicting national standards shall be withdrawn at the latest by February 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European standard describes methods of test to determine physical and chemical properties of Inorganic Supporting and Filtering Materials (ISFM).

NOTE The applicability of the methods is specified in the relevant product standard.

2 Normative references

This European Standard incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate place in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 1483, *Water quality - Determination of mercury.*

EN 12901, *Products used for treatment of water intended for human consumption - Inorganic supporting and filtering materials – Definitions.*

EN 26595, *Water quality - Determination of total arsenic - Silver diethyldithiocarbamate spectrophotometric method (ISO 6595 : 1982).*

EN ISO 3696, *Water for analytical laboratory use - Specification and test methods (ISO 3696:1987).*

ISO 562, *Hard coal and coke - Determination of volatile matter.*

ISO 565, *Test sieves - Metal wire cloth, perforated metal plate and electroformed sheet - Nominal sizes of openings.*

ISO 609, *Solid mineral fuels - Determination of carbon and hydrogen - High temperature combustion method.*

ISO 2395, *Test sieves and test sieving – Vocabulary.*

ISO 2591-1, *Test sieving - Part 1 : Methods using test sieves of woven wire cloth and perforated metal plate.*

ISO 3165, *Sampling of chemical products for industrial use - Safety in sampling.*

ISO 6206, *Chemical products for industrial use - Sampling – Vocabulary.*

ISO 6703-1, *Water quality - Determination of cyanide - Part 1 : Determination of total cyanide.*

ISO 8213, *Chemical products for industrial use - Sampling techniques - Solid chemical products in the form of particles varying from powders to coarse lumps.*

ISO 8288, *Water quality - Determination of cobalt, nickel, copper, zinc, cadmium and lead – Flame atomic absorption spectrometric methods.*

ISO 9174, *Water quality - Determination of chromium - Atomic absorption spectrometric methods.*

ISO 9276-1, *Representation of results of particle size analysis - Part 1 : Graphical representation.*

ISO 9965, *Water quality - Determination of selenium - Atomic absorption spectrometric method (hydride technique).*

ISO 11885, *Water quality - Determination of 33 elements by inductively coupled plasma atomic emission spectroscopy.*

ISO/DIS 13320-1, *Particle size analysis - Laser diffraction methods – Part 1 : General principles.*

3 Terms and definitions

For the purpose of this standard, the definitions given in EN 12901 apply.

4 Sampling

Observe the recommendations of ISO 3165 and see ISO 6206. Sample in accordance with ISO 8213 and obtain the laboratory sample from the bulk sample by using a divider.

5 Physical properties

5.1 Particle size distribution

5.1.1 General

The particle size distribution of granular materials shall be determined by sieving ; this is applicable to distributions measured using sieves of nominal aperture size of 0,025 mm and above (see ISO 2591-1).

For powders, the particle size shall be determined according to the laser optical method (see 5.1.3).

NOTE Alternative methods for particle size determination include :

- water sieving for powders,
- size measurement with magnification : microscopic counting
- particle fall in a fluid without acceleration :, settling
- particle fall in a fluid with acceleration : cycloning
- electromagnetic wave diffraction : turbidity
- dielectric properties : Coulter counter

5.1.2 Particle size distribution for granular material

The particle size distribution for granular material shall be determined in accordance with ISO 2591-1 ; see also ISO 2395 and ISO 565.