Water conditioning equipment inside buildings - Softeners - Requirements for performance, safety and testing KONSOLIDEERITUD TEKST

Water conditioning equipment inside buildings -Softeners - Requirements for performance, safety and testing CONSOLIDATED TEXT



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 14743:2005+A1:2007 sisaldab Euroopa standardi EN 14743:2005+A1:2007 ingliskeelset teksti.

Käesolev dokument on jõustatud 21.08.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 14743:2005+A1:2007 consists of the English text of the European standard EN 14743:2005+A1:2007.

This document is endorsed on 21.08.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

Käsitlusala:

This European Standard specifies requirements relating to the construction and mode of operation and relevant methods of testing of automatic, salt-regenerated, cation exchange softeners for drinking water installations inside buildings which are permanently connected to the mains supply.

Scope:

This European Standard specifies requirements relating to the construction and mode of operation and relevant methods of testing of automatic, salt-regenerated, cation exchange softeners for drinking water installations inside buildings which are permanently connected to the mains supply.

ICS 71.100.80, 91.140.60

Võtmesõnad: drinking water supply, installations, pipelines, pipework systems, quality

EUROPEAN STANDARD NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 14743:2005+A1

June 2007

ICS 71.100.80; 91.140.60

Supersedes EN 14743:2005

English Version

Water conditioning equipment inside buildings - Softeners - Requirements for performance, safety and testing

Appareils de traitement d'eau à l'intérieur des bâtiments -Adoucisseurs - Exigences de performance, de sécurité et essais Anlagen zur Behandlung von Trinkwasser innerhalb von Gebäuden - Enthärter - Anforderungen an Ausführung, Sicherheit und Prüfung

This European Standard was approved by CEN on 26 August 2005 and includes Amendment 1 approved by CEN on 10 May 2007.

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 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 Management Centre has the same status as the official versions.

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



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

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

Cont		Page
	ord	
Forew	ord	
_	Scope	
1		
2	Normative references	
3	Terms and definitions	6
4	Requirements	,
4 .1	Softener specification	
4.2	Quality of materials and chemicals	
4.2.1	Cation exchange resin	
4.2.2	Regenerating salt	
4.2.2	Design and manufacturing specifications	
4.3 4.3.1	Resistance to hydrostatic pressure	
4.3.1	Resistance to rydrostatic pressure	
4.3.2 4.3.3	Minimum and maximum operating pressure	
4.3.4 4.3.4	Resistance to temperature	
4.3.4 4.3.5	Electrical safety	
4.3.6	Salt tank	
4.3.6 4.3.7	Continuity of supply during regeneration	
4.3. <i>1</i> 4.3.8	Protection against backflow and infiltration of brine	
4.3.9	Noise level	
	Air vent	
4.3.10	End connections	1(
4.3.11		
4.3.12 4.4	Operating specifications	
4.4 4.4.1	Initiation of regeneration	
4.4.1 4.4.2	Brining efficiency	1
4.4.2 4.4.3	Regeneration water	
4.4.3 4.4.4	Quality of treated water after regeneration	
4.4.4 4.4.5	Continuous flow rate	
4.4.5 4.4.6	Pressure drop	
4.4.7	Exchange capacity	
4.4. <i>1</i> 4.5	Installation specifications	
4.5 4.5.1	Connection to mains water supply and existing pipe network	
4.5.1 4.5.2	Drain	
4.5.2 4.5.3	Electrical connection	
4.5.3		
5	Labelling	11
5.1	Identification of equipment	11
5.2	Safety labelling	11
6	Technical documentation	12
7	Test methods	
7.1	Test conditions	
7.1.1	Ambiant air	
7.1.2	Water and salt	
7.1.3	Test rig	
7.1.4	Analysis	
7.1. - 7.2	Cation exchange resin	
7.3	Technical documentation	
7.4	Manufacturing tests	
7.4.1	Resistance to hydrostatic pressure	

	14
Continuity of water supply	
Quality of treated water after a regeneration	17
graphy and the state of the sta	
	Protection against backflow

Foreword

This document (EN 14743:2005+A1:2007) has been prepared by Technical Committee CEN/TC 164 "Water supply", the secretariat of which is held by AFNOR.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2007 and conflicting national standards shall be withdrawn at the latest by December 2007.

This document includes Amendment 1, approved by CEN on 2007-05-10.

This document supersedes EN 14743:2005.

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A].

In respect of potential adverse effects on the quality of water intended for human consumption, caused by the product covered by this European Standard:

- 1) This European Standard provides no information as to whether the product may be used without restriction in any of the Member States of the EU or EFTA.
- 2) It should be noted that, while awaiting the adoption of verifiable European criteria, existing national regulations concerning the use and/or the characteristics of this product remain in force.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This European Standard specifies requirements relating to the construction and mode of operation and relevant methods of testing of automatic, salt-regenerated, cation exchange softeners for drinking water installations inside buildings which are permanently connected to the mains supply.

Until EAS comes into force, the current national regulations remain applicable.

NOTE Products intended for use in water supply systems should comply, when existing, with national regulations and testing arrangements that ensure fitness for contact with drinking water. The Member States relevant regulators and the EC Commission agreed on the principle of a future unique European Acceptance Scheme (EAS) which would provide a common testing and approval arrangement at European level.

If and when the EAS is adopted, European Standards on products will be amended by the addition of an Annex Z/EAS under Mandate M/136 which will contain formal references to the testing, certification and product marking requirements of the EAS.

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 973, Chemicals used for treatment of water intended for human consumption — Sodium chloride for regeneration of ion exchangers

EN 1717, Protection against pollution of potable water in drinking water installations and general requirements of devices to prevent pollution by backflow

EN 60335-1, Household and similar electrical appliances — Safety — Part 1: General requirements (IEC 60335-1:2001, modified)

EN ISO 228-1, Pipe threads where pressure tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation (ISO 228-1:2000)

EIN ISO 3822-1, Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 1: Method of measurement (ISO 3822-1:1999)

EN ISO 3822-3, Acoustics — Laboratory tests on noise emission from appliances and equipment used in water supply installations — Part 3: Mounting and operating conditions for in-line valves and appliances

EN ISO 10304-1, Water quality — Determination of dissolved fluoride, chloride, nitrite, orthophosphate, bromide, nitrate and sulfate ions, using liquid chromatography of ions — Part 1: Method for water with low contamination (ISO 10304-1:1992)

EN ISO 11885, Water quality — Determination of 33 elements by inductively coupled plasma atomic emission spectroscopy (ISO 11885:1996)

ISO 7-1, Pipe threads where pressure tight joints are made on the threads — Part 1: Dimensions, tolerances and designation