SLOVENSKI STANDARD
SIST EN 60335-2-58:2005/A11:2010

01-april-2010

Gospodinjski in podobni električni aparati - Varnost - 2-58. del: Posebne zahteve za komercialne električne pomivalne stroje

Household and similar electrical appliances - Safety -- Part 2-58: Particular requirements for commercial electric dishwashing machines

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2-58: Besondere Anforderungen für elektrische Spülmaschinen für den gewerblichen Gebrauch

Appareils électrodomestiques et analogues - Sécurité -- Partie 2-58: Règles particulières pour les lave-vaisselle électriques à usage collectif

Ta slovenski standard je istoveten z: EN 60335-2-58:2005/A11:2010

ICS:

97.040.40 Pomivalni stroji Dishwashers

SIST EN 60335-2-58:2005/A11:2010 en

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60335-2-58/A11

January 2010

ICS 97.040.40

English version

Household and similar electrical appliances - Safety - Part 2-58: Particular requirements for commercial electric dishwashing machines

Appareils électrodomestiques et analogues - Sécurité - Partie 2-58: Règles particulières pour les lave-vaisselle électriques à usage collectif

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Teil 2-58: Besondere Anforderungen für elektrische Spülmaschinen für den gewerblichen Gebrauch

This amendment A11 modifies the European Standard EN 60335-2-58:2005; it was approved by CENELEC on 2009-11-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 Central Secretariat or to any CENELEC member.

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

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

CENELEC

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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 60335-2-58:2005/A11:2010 E

Foreword

This amendment to the European Standard EN 60335-2-58:2005 was prepared by the Technical Committee CENELEC TC 61, Safety of household and similar electrical appliances.

Two proposals to amend EN 60335-2-58:2005 (documents CENELEC/TC 61/DE0581/DC and CENELEC/TC 61/DE0583/DC) were discussed during the Brughes meeting of CENELEC TC 61 in June 2005; when it was decided to submit the drafts to formal vote.

The drafts (prAA and prAB) were circulated in May 2008 and were approved together as amendment A11 to EN 60335-2-58 on 2009-11-01.

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

The following dates are applicable:

– latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2010-11-01

– latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2012-11-01

This amendment supplements or modifies the corresponding clauses of EN 60335-2-58:2005.

There are no special national conditions causing a deviation from this amendment.

There are no national deviations from this amendment.

1 Scope

***Add** after the third paragraph*:

This standard also deals with noise requirements. See Annex ZAA.

7 Marking and instructions

***Add** the following subclause:*

7.12.Z101 The instructions shall include a noise emission declaration according to ZAA.2.8.

***Replace** the existing Annex AA by the following*:

Annex AA
(normative)

Detergent and rinsing agent

(Based on EN 50242:2008/EN 60436:2008, Annex D)

AA.1 Detergent

AA.1.1 Detergent B

The reference detergent containing no phosphate shall consist of the following.

Chemical substance	Specification	Wt. %
Sodium citrate dihydrate	N 1560/Jungbunzlauer	30,0
Maleic acid/acrylic acid copolymer Na salt	Alternative 1: Sokalan CP 5 Compound/Henkel 50 % active on sodium carbonate Alternative 2: Norasol WL 4/Norsohaas 30 % active on sodium carbonate	12,0 20,0
Sodium perborate monohydrate	--	5,0
Tetraacetyl ethylendiamine	TAED/Warwick	2,0
Sodium disilicate (noncrystalline)	Portil A/Cognis	25,0
Linear fatty alcohol ethoxylate (Nonionic surfactant, low foaming)	Plurafac LF403/BASF	2,0
Protease	Savinase X.0T/NOVO	40 KNPU/kg ‡ e.g. Savinase 8.0T : 0,5 %
Amylase	Termamyl xxT/NOVO	300 KNU/kg ‡ e.g. Termamyl 60T : 0,5 %
Sodium carbonate, anhydrous	Soda, leicht/Mathes & Weber	Add to 100
‡ = Activity units.		

AA.1.2 Detergent C

The reference detergent containing phosphate but no chlorine bleach shall consist of the following.

Chemical substance	Specification	Wt. %
Sodium tripolyphosphate	Thermphos NW/Clariant	23,0
Tri-sodium citrate dihydrate	N 1560/Jungbunzlauer	22,3
Sodium perborate monohydrate	--	6,0
Tetraacetyl ethylendiamine	TAED/Warwick	2,0
Sodium disilicate (noncrystalline)	Portil A/Cognis	5,0
Linear fatty alcohol ethoxylate (Nonionic surfactant, low foaming)	Plurafac LF403/BASF	2,0
Maleic acid/acrylic acid copolymer Na salt	Alternative 1: Sokalan CP 5 Compound/Henkel 50 % active on sodium carbonate Alternative 2: Norasol WL 4/Norsohaas 30 % active on sodium carbonate	4,0 6,7
Protease	Savinase X.0T/NOVO	80 KNPU/kg* ‡ e.g. Savinase 8.0T: 1,0 %
Amylase	Termamyl xxT/NOVO	420 KNU/kg* ‡ e.g. Termamyl 60T: 0,7 %
Sodium carbonate	Soda, leicht/Mathes & Weber	Add to 100
‡ = Activity units.		

Detergents shall be stored in a waterproofed bag in quantities of no more than 1 kg in a cool and dry atmosphere. It shall be used within six months and within one month of opening.

For the address of the supplier of the reference detergents, see Annex F of EN 50242:2008/EN 60438:2008.

AA.2 Rinse agent

The reference rinse aids shall consist of the following.

Chemical substance	Specification	Formula “III” (acidic)	Formula “IV” (neutral)
Linear fatty alcohol ethoxylate (Nonionic surfactant, low foaming)	Plurafac LF 221/BASF	15,0	15,0
Cumene sulfonate	Stepanate SCS/Stepan (40 % solution in water.)	11,5	11,5
Citric acid (anhydrous)	--	3,0	-----
H_2O	Deionized water	Add to 100	Add to 100
Physical parameters:			
Viscosity [mpas]		17,0	11,0
pH (1 % in water)		2,2	6,3

Annex ZC

***Add**:*

Publication	Year	Title	EN/HD	Year
ISO 3744	1994	Acoustics – Determination of sound power levels of noise sources using sound pressure – Engineering method in an essentially free field over a reflecting plane	EN ISO 3744	1995
ISO 3746	1995	Acoustics – Determination of sound power levels of noise sources using sound pressure – Survey method using an enveloping measurement surface over a reflecting plane	EN ISO 3746	1995
ISO 4871	1996	Acoustics – Declaration and verification of noise emission values of machinery and equipment	EN ISO 4871	1996
ISO 9614-2	1996	Acoustics – Determination of sound power levels of noise sources using sound intensity – Part 2: Measurement by scanning	EN ISO 9614-2	1996
ISO 11204	1995	Acoustics – Noise emitted by machinery and equipment – Measurement of emission sound pressure levels at a work station and at other specified positions – Method requiring environmental corrections	EN ISO 11204	1995

Bibliography

***Add** the following standard:*

EN ISO 11688-1, *Acoustics – Recommended practice for the design of low-noise machinery and equipment – Part 1: Planning (ISO/TR 11688-1)*

***Add** the following annex:*

Annex ZAA
(normative)

Noise

ZAA.1 Noise reduction

Noise reduction is an integral part of the design process and shall be achieved by applying measures to control noise at the source, see for example EN ISO 11688-1.

The success of the applied noise reduction measures is assessed on the basis of the actual noise emission values in relation to other machines of the same type.

ZAA.2 Noise test code

ZAA.2.1 Emission sound pressure level determination

The A-weighted emission sound pressure level shall be measured in accordance with EN ISO 11204 grade 2. If it is not possible to comply with the requirements of grade 2, EN ISO 11204 grade 3 shall apply. In this case the test report shall state the reasons why it was not possible to apply the grade 2 method.

The microphone positions to determine the emission sound pressure level are shown in Figure ZAA.101 describing possible positions of the operator in front of the machine.

The microphone is placed at a distance of 0,20 m from the front of the machine at a height of 1,55 m ± 0,05 m.

The measurement time shall be at least 15 s.

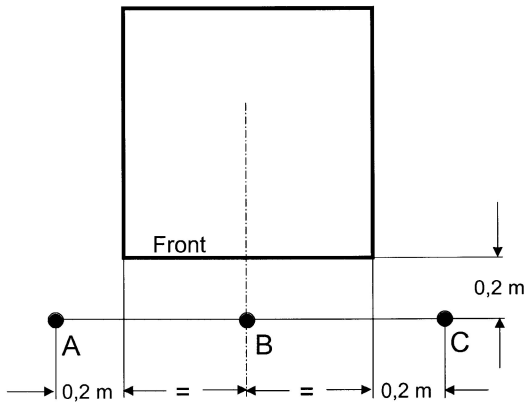

Figure ZAA.101 – Microphone positions for determining the emission sound pressure level

ZAA.2.2 Sound power level determination

If it is required to determine the A-weighted sound power level, it shall be measured in accordance with EN ISO 3744 or EN ISO 9614-2 grade 2. When applying EN ISO 3744 or EN ISO 9614-2 the parallelepiped measurement surface shall be used. If grade 2 cannot be applied EN ISO 3746 or EN ISO 9614-2 grade 3 shall be used. In this case the test report shall state the reasons why it was not possible to apply the grade 2 method.