

## SLOVENSKI STANDARD SIST EN 60745-2-6:2010/oprAA:2013

01-februar-2013

#### Električna ročna orodja - Varnost - 2-6. del: Posebne zahteve za kladiva

Hand-held motor-operated electric tools - Safety - Part 2-6: Particular requirements for hammers

Handgeführte motorbetriebene Elektrowerkzeuge - Sicherheit - Teil 2-6: Besondere Anforderungen für Hämmer

Outils électroportatifs à moteur - Sécurité - Partie 2-6: Règles particulières pour les marteaux

Ta slovenski standard je istoveten z: EN 60745-2-6:2010/prAA:2012

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EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM **DRAFT EN** 60745-2-6 **prAA** 

December 2012

**ICS** 

English version

# Hand-held motor-operated electric tools - Safety -

Part 2-6: Particular requirements for hammers

Outils électroportatifs à moteur -Sécurité -Partie 2-6: Règles particulières pour les marteaux Handgeführte motorbetriebene Elektrowerkzeuge -Sicherheit -Teil 2-6: Besondere Anforderungen für Hämmer

This draft amendment prAA, if approved, will modify the European Standard EN 60745-2-6:2010; it is submitted to CENELEC members for CENELEC enquiry.

Deadline for CENELEC: 2013-05-10.

It has been drawn up by CLC/TC 116.

If this draft becomes an amendment, 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.

This draft amendment was established by CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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## **CENELEC**

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

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Project: 23762

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Foreword

- 2 This document [EN 60745-2-6:2010/prAA:2012] has been prepared by CLC/TC 116 "Safety of motor-
- 3 operated electric tools".

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- 4 This document is currently submitted to the Enquiry.
- 5 This document has been prepared under a mandate given to CENELEC by the European Commission
- and the European Free Trade Association, and supports essential requirements of EU Directive(s).
- 7 This amendment was developed to set out requirements for the measurement of the concentration for
- 8 inhalable and respirable dust emitted by hammers.
- 9 Clauses, subclauses, notes, tables and figures which are additional to those in IEC 60745-2-6 are
- 10 prefixed "Z".
- Subclauses, tables and figures which are additional to those in Part 1 are numbered starting from 101;
- 12 additional annexes are lettered AA, BB, etc.

#### Text of prAA to EN 60745-2-6:2010 13

14	Annexes		
15	Add the following new Annex:		
16 17	Annex ZC (normative)		
18 19	Dust measurement		
20	ZC.1 Scope		
21	This clause of Part 1 is applicable except as follows:		
22	Addition:		
23 24	Annex ZC applies to the measurement of the concentration for inhalable and respirable dust emitted by hammers.		
25	ZC.2 Normative references		
26	This clause of Part 1 is applicable except as follows:		
27	Addition:		
28	EN 10080, Steel for the reinforcement of concrete – Weldable reinforcing steel – General		
29	ZC.4 Test procedure		
30	This clause of Part 1 is applicable except as follows:		
31	ZC.4.3 Operating conditions		
32	Addition:		
33	Rotary hammers are tested under load observing the conditions shown in Table ZC.101.		

### Table ZC.101 — Operating conditions for rotary hammers

Material and set-up	Concrete block without a reinforcement having the formulation specified in Table Z102 and having the minimum dimensions 500 mm x 500 mm and 200 mm in height.		
	After the 28 days as specified in Table Z.102, the concrete block shall be stored for another three weeks under dry conditions.		
	The block is placed on a A-support, see Figure ZC.101, with 15 $^{\circ}$ inclination with the lower workpiece support being (1 000 $\pm$ 50) mm above the floor.		
Orientation and operation	Drilling holes into the concrete block rectangular to its surface of the 500 mm x 500 mm area. The holes shall have a depth in accordance with Table ZC.102.		
	The distance between the holes shall be large enough so that the dust collection device of the hammer does not cover any adjacent holes or overhang the edge of the block.		
Tool bit/settings	New drill bit as specified by the manufacturer for drilling into concrete at the beginning of each of the three tests.		
	Speed setting devices, if any, shall be adjusted to the setting specified for the drill bit size and for drilling into concrete.		
Feed force	The feed force applied to the tool shall be sufficient to ensure stable operation with good performance.		
Test	During the entire test, a number of holes as specified in Table ZC.102 shall be performed equally distributed over the test time.		

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### Table ZC.102 — Drilling specification

Tool mass	Diameter of drill bit	Number of holes per test	Depth of hole
kg	mm	por toot	mm
≤ 3,5	10	120	50
> 3,5 ≤ 5	16	120	50
> 5 ≤ 7	20	60	
> 7 ≤ 10	25	60	100
> 10 ≤ 18	32	60	100
> 18	40	60	

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Percussion hammers are tested under load observing the conditions shown in Table ZC.103.

#### Table ZC.103 — Operating conditions for hammers without rotary action

Material and set-up	Reinforced concrete block(s) having the formulation specified in Table Z102 and having the minimum dimensions 500 mm x 800 mm and 200 mm in height. The concrete block shall be reinforced with 2 layers of 6 rebars each, $\emptyset$ 12 mm, B500B regarding to EN 10080 longitudinally (direction 800 mm). The distance from rebar to rebar and rebar to block edge shall be (70 ± 30) mm.		
	After the 28 days as specified in Table Z.102, the concrete block shall be stored for another three weeks under dry conditions.		
	For percussion hammers with a mass less than or equal to 5 kg, the concrete block(s) is (are) placed on a A-support, see Figure ZC.101, with 15° inclination, the lower workpiece support being (1 000 $\pm$ 50) mm above the floor. To prevent damage to the A-support, additional supporting material such as plywood or fibreboard may be used between the block(s) and the A-support.		
	For percussion hammers with a mass above 5 kg, a sufficient number of concrete blocks is placed side by side on the floor. The blocks may be supported by pallets or the like.		
Orientation and	Chisel on concrete blocks.		
operation	For percussion hammers with a mass less than or equal to 5 kg, the work starts on either side of the block, working from top to bottom of the block.		
	For percussion hammers with a mass above 5 kg, chisel on concrete blocks vertically downwards.		
	The concrete block shall be destroyed in length direction as shown in Figure ZC.102. The work process is finished when all rebars have been separated.		
Tool bit/settings	New or re-sharpened pointed chisel as specified by the manufacturer for chiselling concrete.		
	Speed setting devices, if any, shall be adjusted to the setting specified by the manufacturer for chiselling concrete.		
Feed force	The forces applied to the tool shall be sufficient to chisel with good performance without overloading the tool.		
Test	One test consists of four test cycles of 10 min working time and 5 min rest time.		
	For percussion hammers with a mass of less than or equal to 5 kg, each work cycle is started on a new half of a block.		
	For percussion hammers with a mass above 5 kg, the work is started on the first block, and after destroying one block, is continued on a new block.		

41 The mass is measured without accessories and flexible cable or cord, but including an auxiliary

42 handle, if provided with the tool.

#### ZC.5 Test report

- This clause of Part 1 is applicable except as follows:
- 45 j) Modification:

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The mean value for the concentration of the respirable dust is also required.

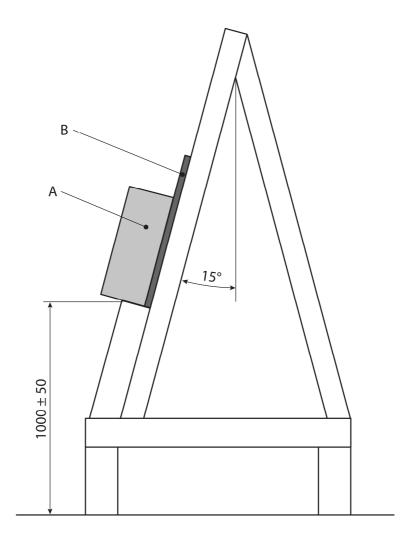
#### 47 ZC.6 Additional instructions

- This clause of Part 1 is applicable except as follows:
- 49 Modification of the first dash:
- The mean value for the concentration of the respirable dust is also required.

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51 Dimensions in millimetres



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- 53 **Key**
- 54 A workpiece
- 55 B additional supporting material

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Figure ZC.101 – A-support