

SLOVENSKI STANDARD

SIST EN 60745-2-4:2010

01-april-2010

Nadomešča:

SIST EN 60745-2-4:2003

SIST EN 60745-2-4:2003/A1:2009

SIST EN 60745-2-4:2003/A11:2007

Električna ročna orodja - Varnost - 2-4. del: Posebne zahteve za brusilnike in polirnike, razen diskovnih brusilnikov (IEC 60745-2-4:2002, spremenjen + A1:2008, spremenjen)

Hand-held motor-operated electric tools - Safety -- Part 2-4: Particular requirements for sanders and polishers other than disk type

Handgeführte motorbetriebene Elektrowerkzeuge - Sicherheit -- Teil 2-4: Besondere Anforderungen für Schleifer und Polierer außer Tellerschleifern

Outils électroportatifs à moteur - Sécurité -- Partie 2-4: Règles particulières pour les ponceuses et lustreuses, autres que du type à disque

Ta slovenski standard je istoveten z: EN 60745-2-4:2009

ICS:

25.080.50	Brusilni in polirni stroji	Grinding and polishing machines
25.140.20	Električna orodja	Electric tools

SIST EN 60745-2-4:2010 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60745-2-4:2010](#)

<https://standards.iteh.ai/catalog/standards/sist/9df9d2fd-47af-4c2e-b19b-10406351ff77/sist-en-60745-2-4-2010>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60745-2-4

December 2009

ICS 25.140.20; 25.140.30; 25.080.50

Supersedes EN 60745-2-4:2003 + A1:2009 + A11:2007

English version

**Hand-held motor-operated electric tools -
Safety -
Part 2-4: Particular requirements for sanders and polishers
other than disk type
(IEC 60745-2-4:2002 + A1:2008, modified)**

Outils électroportatifs à moteur -
Sécurité -
Partie 2-4: Règles particulières
pour les ponceuses et les lustreuses
autres que du type à disque
(CEI 60745-2-4:2002
+ A1:2008, modifiés)

Handgeführte motorbetriebene
Elektrowerkzeuge -
Sicherheit -
Teil 2-4: Besondere Anforderungen
für Schleifer und Polierer
außer Tellerschleifern
(IEC 60745-2-4:2002,
+ A1:2008, modifiziert)

[SIST EN 60745-2-4:2010](https://standards.iteh.ai/catalog/standards/sist/9df9d2fd-47af-4c2e-b19b-7049211a7804/iec-60745-2-4-2002-a1-2008-modified)

[https://standards.iteh.ai/catalog/standards/sist/9df9d2fd-47af-4c2e-b19b-](https://standards.iteh.ai/catalog/standards/sist/9df9d2fd-47af-4c2e-b19b-7049211a7804/iec-60745-2-4-2002-a1-2008-modified)

This European Standard was approved by CENELEC on 2009-09-01. CENELEC 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 Central Secretariat or to any CENELEC 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 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, 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

Foreword

The text of the International Standard IEC 60745-2-4:2002, prepared by SC 61F (transformed into IEC TC 116, Safety of hand-held motor-operated electric tools), together with the common modifications prepared by the Technical Committee CENELEC TC 61F (transformed into TC 116), was submitted to the formal vote and was approved by CENELEC as EN 60745-2-4 on 2003-02-01.

A draft amendment (prAB) was prepared to align Subclause 6.2 with the new Subclause 6.2 in EN 60745-1. Moreover, vibration values determined with the new 6.2 are complying with the requirements of the Physical Agents Directive Vibration 2002/44/EC. The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A11 to EN 60745-2-4:2003 on 2007-02-01.

The text of document 61F/733/FDIS, future amendment 1 to IEC 60745-2-4:2002, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60745-2-4:2003 on 2009-04-22.

A further draft amendment (prAC), extending Annex ZZ to include the new MD 2006/42/EC, was submitted to the formal vote.

The combined texts were approved by CENELEC as a new edition of EN 60745-2-4 on 2009-09-01.

This European Standard supersedes EN 60745-2-4:2003 + A11:2007 + A1:2009.

The following dates were fixed:

- | | | |
|--|-------|------------|
| - latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement | (dop) | 2010-02-01 |
| - latest date by which the national standards conflicting with the EN have to be withdrawn | (dow) | 2012-05-01 |

This standard is divided into two parts:

Part 1: General requirements which are common to most hand-held electric motor operated tools (for the purpose of this standard referred to simply as tools) which could come within the scope of this standard;

Part 2: Requirements for particular types of tools which either supplement or modify the requirements given in Part 1 to account for the particular hazards and characteristics of these specific tools.

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and supports the essential requirements of EC Directive 98/37/EC (Machinery Directive), amended by EC Directive 98/79/EC, and of EC Directive 2006/42/EC. See Annexes ZZA and ZZB.

Compliance with the clauses of Part 1 together with this Part 2 provides one means of conforming with the essential health and safety requirements of the Directive concerned.

CEN/TC 255 is producing standards for non-electric sanders and polishers (EN 792-8).

Warning: Other requirements and other EC Directives can be applicable to the products falling within the scope of this standard.

This standard follows the overall requirements of EN ISO 12100-1 and EN ISO 12100-2.

This Part 2-4 is to be used in conjunction with EN 60745-1:2009. When this standard states "addition", "modification" or "replacement", the relevant text in Part 1 is to be adapted accordingly.

Subclauses and figures which are additional to those in Part 1 are numbered starting from 101.

Subclauses, tables and figures which are additional to those in IEC 60745-2-4 are prefixed "Z".

NOTE In this standard, the following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in smaller roman type.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 60745-2-4:2010](https://standards.iteh.ai/catalog/standards/sist/9df9d2fd-47af-4c2e-b19b-10406351ff77/sist-en-60745-2-4-2010)

<https://standards.iteh.ai/catalog/standards/sist/9df9d2fd-47af-4c2e-b19b-10406351ff77/sist-en-60745-2-4-2010>

Endorsement notice

The text of the International Standard IEC 60745-2-4:2002 + A1:2008 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

1 Scope

Replace the first paragraph of the addition by:

This standard applies to sanders and polishers with the exception of all types of rotating disc-type sanders, which are covered by EN 60745-2-3.

3 Terms and definitions

Add the following new definition:

3.Z101

mass of the tool

mass of the complete tool as prepared for the test with all equipment needed for normal use, but without the cable

iTeh STANDARD PREVIEW
(standards.iteh.ai)

6 Void

Replace by: [SIST EN 60745-2-4:2010
https://standards.iteh.ai/catalog/standards/sist/9df9d2fd-47af-4c2e-b19b-10406351ff77/sist-en-60745-2-4-2010](https://standards.iteh.ai/catalog/standards/sist/9df9d2fd-47af-4c2e-b19b-10406351ff77/sist-en-60745-2-4-2010)

6 Environmental requirements

This clause of Part 1 is applicable except as follows:

6.1.2.4 Modification:

Sanders and polishers are suspended. The plate of the tool shall be horizontal.

6.1.2.5 Modification:

Sanders and polishers are tested at no-load.

6.2 Vibration

6.2.4.2 Location of the measurement

Addition:

Figures Z101 and Z102 show the positions for different sanders and polishers.

6.2.6.3 Operating conditions

Modification:

Sanders and polishers are tested under load observing the conditions shown in Tables Z101 and Z102.

Table Z101 - Operating conditions for sanders

Orientation	Sanding a horizontal steel plate 400 mm × 400 mm × 20 mm mounted on a bench
Tool bit	Recommended sanding paper for steel with a grain size of 180
Feed force	30 N ± 5 N, if the mass of the tool is less than 1,5 kg 50 N ± 5 N, if the mass of the tool is equal or greater than 1,5 kg
Pre-test requirements	With a new sanding sheet carry out 1 min sanding before starting measurements

Table Z102 - Operating conditions for polishers

Orientation	Polishing a horizontal steel plate 400 mm × 400 mm × 20 mm mounted on a bench
Tool bit	Polishing pad
Feed force	30 N ± 5 N, if the mass of the tool is less than 1,5 kg 50 N ± 5 N, if the mass of the tool is equal or greater than 1,5 kg

6.2.7.2 Declaration of the vibration total value

Addition:

The vibration total value a_h of the handle with the highest emission and the uncertainty K shall be declared.

8 Marking and instructions

Add:

8.12.2 Za) Addition:

101) for sanders:

instructions how to deal with harmful/toxic dusts arising from sanding e.g. lead painted surfaces, woods and metals. These instructions shall be preceded by a warning that contact with or inhalation of these dusts can endanger the health of operator and bystanders. These instructions shall include the use of appropriate personal protective equipment.

21 Construction

Replace by:

This clause of Part 1 is applicable except as follows:

21.Z1 *Addition:*

Sanders for woodworking are considered to be tools where a considerable amount of dust is produced.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60745-2-4:2010](https://standards.iteh.ai/catalog/standards/sist/9df9d2fd-47af-4c2e-b19b-10406351ff77/sist-en-60745-2-4-2010)

<https://standards.iteh.ai/catalog/standards/sist/9df9d2fd-47af-4c2e-b19b-10406351ff77/sist-en-60745-2-4-2010>

Add the following new figures:

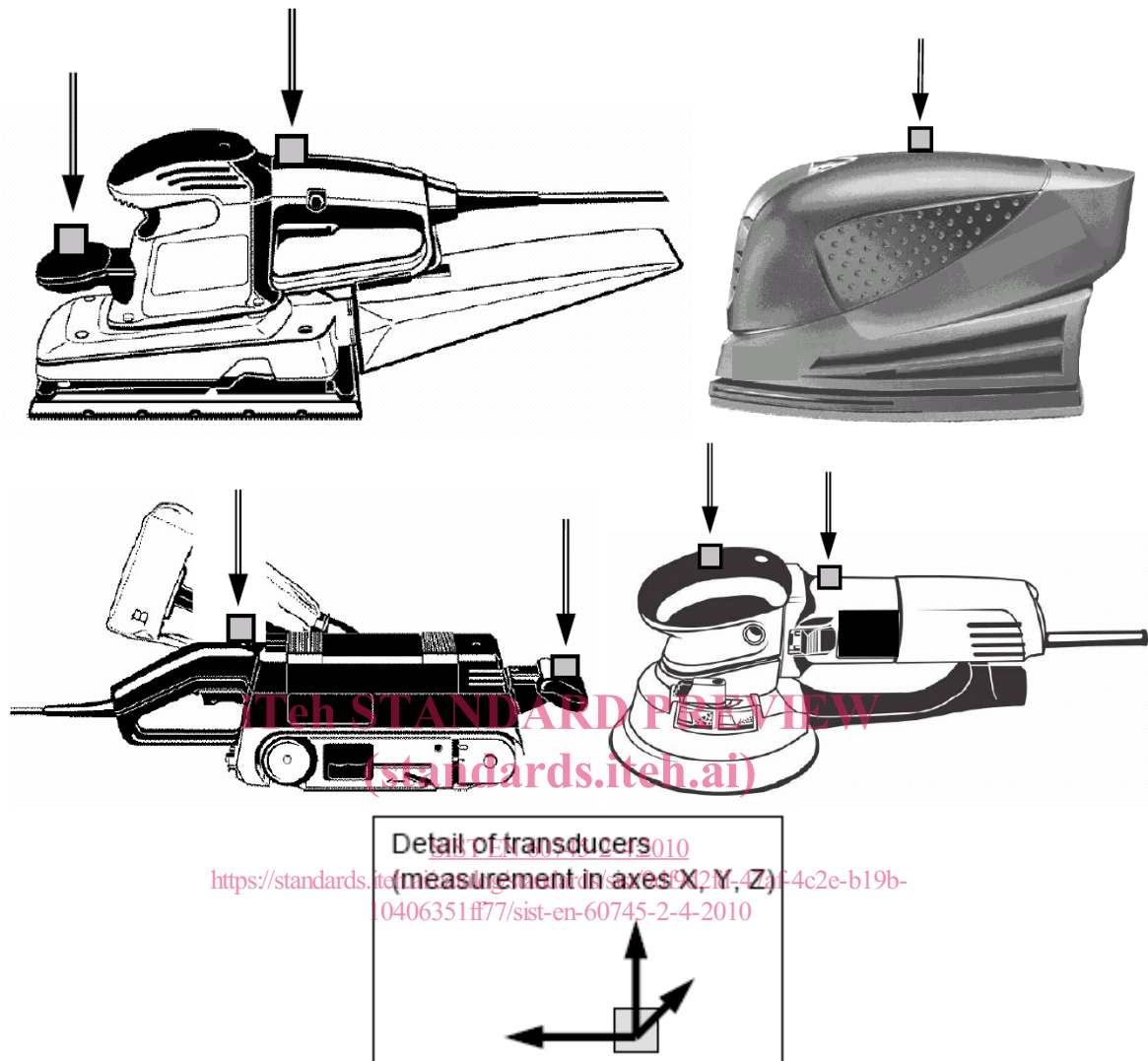


Figure Z101 - Position of transducers for sanders and polishers

Bibliography

Replace the addition by:

EN 60745-2-3:2007, *Hand-held motor-operated electric tools - Safety - Part 2-3: Particular requirements for grinders, polishers and disk-type sanders* (IEC 60745-2-3:2006, mod)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60745-2-4:2010](https://standards.iteh.ai/catalog/standards/sist/9df9d2fd-47af-4c2e-b19b-10406351ff77/sist-en-60745-2-4-2010)

<https://standards.iteh.ai/catalog/standards/sist/9df9d2fd-47af-4c2e-b19b-10406351ff77/sist-en-60745-2-4-2010>

Add the following annex:

Annex ZZ
(informative)

Annex ZZA
(informative)

Coverage of Essential Requirements of Directive 98/37/EC

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant Essential Requirements as given in EC Directive 98/37/EC (Machinery Directive), amended by Directive 98/79/EC.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.

iTeh STANDARD PREVIEW

Annex ZZB
(informative)

Coverage of Essential Requirements of Directive 2006/42/EC

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant Essential Requirements as given in EC Directive 2006/42/EC (Machinery Directive).

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.