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Bonded abrasive products — Limit deviations and run-out tolerances

Produits abrasifs agglomérés — Écartes limites et tolérances de battement



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 13942 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 5, *Grinding wheels and abrasives*.

Bonded abrasive products — Limit deviations and run-out tolerances

1 Scope

This International Standard specifies the essential limit deviations and run-out tolerances, in millimeters, for bonded abrasive products as specified in ISO 603-1 to ISO 603-16.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 286-1:1988, *ISO system of limits and fits — Part 1: Bases of tolerances, deviations and fits.*

ISO 286-2:1988, *ISO system of limits and fits — Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts.*

ISO 603-1, *Bonded abrasive products — Dimensions — Part 1: Grinding wheels for external cylindrical grinding between centres.*

ISO 603-2, *Bonded abrasive products — Dimensions — Part 2: Grinding wheels for centreless external cylindrical grinding.*

ISO 603-3, *Bonded abrasive products — Dimensions — Part 3: Grinding wheels for internal cylindrical grinding.*

ISO 603-4, *Bonded abrasive products — Dimensions — Part 4: Grinding wheels for surface grinding/peripheral grinding.*

ISO 603-5, *Bonded abrasive products — Dimensions — Part 5: Grinding wheels for surface grinding/face grinding.*

ISO 603-6, *Bonded abrasive products — Dimensions — Part 6: Grinding wheels for tool and tool room grinding.*

ISO 603-7, *Bonded abrasive products — Dimensions — Part 7: Grinding wheels for manually guided grinding.*

ISO 603-8, *Bonded abrasive products — Dimensions — Part 8: Grinding wheels for deburring and fettling/snagging.*

ISO 603-9, *Bonded abrasive products — Dimensions — Part 9: Grinding wheels for high-pressure grinding.*

ISO 603-10, *Bonded abrasive products — Dimensions — Part 10: Stones for honing and superfinishings.*

ISO 603-11, *Bonded abrasive products — Dimensions — Part 11: Hand finishing sticks.*

ISO 603-12, *Bonded abrasive products — Dimensions — Part 12: Grinding wheels for deburring and fettling on a straight grinder.*

ISO 603-13, *Bonded abrasive products — Dimensions — Part 13: Grinding wheels for deburring and fettling on a vertical grinder.*

ISO 603-14, *Bonded abrasive products — Dimensions — Part 14: Grinding wheels for deburring and fettling/snagging on an angle grinder.*

ISO 603-15, *Bonded abrasive products — Dimensions — Part 15: Grinding wheels for cutting-off on stationary or mobile cutting-off machines.*

ISO 603-16, *Bonded abrasive products — Dimensions — Part 16: Grinding wheels for cutting-off on hand held power tools.*

3 Terms and definitions

For the purposes of this International Standard, the following terms and definitions apply.

For further terms and definitions, see also ISO 286-1. It should be noted that some of the terms are defined in a more restricted sense than in common usage.

3.1

shaft

external feature of a workpiece, including features which are not cylindrical

3.2

hole

internal feature of a workpiece, including features which are not cylindrical

3.3

size

number, expressing in a particular unit, the numerical value of a linear dimension

3.3.1

basic size

nominal size

size from which the limits of size are derived by the application of the upper and lower deviations

NOTE The basic size can be a whole number or a decimal number, e.g. 32; 15; 8,75; 0,5 etc.

3.3.2

actual size

size of a feature, obtained by measurements

3.3.3

limits of size

the two extreme permissible sizes of a feature, between which the actual size should lie, the limits of size being included

3.3.3.1

maximum limit of size

greatest permissible size of a feature

3.3.3.2

minimum limit of size

smallest permissible size of a feature