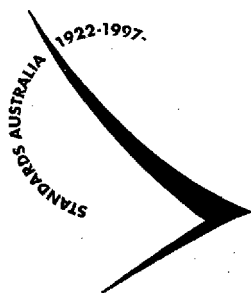


AS/NZS 4523:1998

ISO 525:1986

Australian/New Zealand Standard[®]

**Bonded abrasive products—
General—Designation, marking,
range of outside diameters and
tolerances**



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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee ME/33, Abrasives. It was approved on behalf of the Council of Standards Australia on 30 September 1997 and on behalf of the Council of Standards New Zealand on 29 September 1997. It was published on 5 January 1998.

The following interests are represented on Committee ME/33:

Abrasives Institute of Australia
Australian Association of Certification Bodies
Australian Business
Australian Chamber of Commerce and Industry
Furnishing Industry Association of Australia
Industrial Diamond Association
New Zealand Institute of Engineering Sciences
University of Melbourne

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This Standard was issued in draft form for comment as DR 97247.

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Australian/New Zealand Standard®

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tolerances**

Originated as part of AS B172.1—1967 and AS B172.2—1968.
Jointly revised, amalgamated and redesignated in part as AS/NZS 4523:1998.

PUBLISHED JOINTLY BY:

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee ME/33, Abrasives, to supersede, in part, AS B172.1—1967, *Bonded abrasive products, Part 1: Designation and marking*, and AS B172.2—1968, *Bonded abrasive products, Part 2: Shapes and dimensions of grinding wheels*.

This Standard is identical with and has been reproduced from ISO 525:1986, *Bonded abrasive products—General—Designation, marking, range of outside diameters and tolerances*.

The objective of this Standard is to provide manufacturers and users of bonded abrasive products with minimum dimensional requirements which should be incorporated into these products.

This Standard is one of a series of Standards applicable to bonded abrasive products.

Statements expressed in mandatory terms in notes to tables, figures or clauses are deemed to be requirements of this Standard.

As this Standard is reproduced from an international Standard, the following applies:

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<i>Reference to International Standard or other publication</i>		<i>Australian/New Zealand Standard</i>	
ISO		AS/NZS	
286	ISO system of limits and fits	—	
603	Bonded abrasive products— Dimensions		
1938	ISO system of limits and fits	—	
1938.2	Part 2: Inspection of plain workpieces		
6103	Bonded abrasive products—Static balancing of grinding wheels		
8486	Bonded abrasive products—Grain size analysis—Designation—Testing of grain size distribution of macrogrits from F4 to F220	4518	Bonded abrasives—Determination and designation of grain size distribution
		4518.1	Part 1: Macrogrits F4 to F220

CONTENTS

	<i>Page</i>
1 SCOPE AND FIELD OF APPLICATION	1
2 REFERENCES	1
3 DESIGNATION	1
4 MARKING OF BONDED ABRASIVE PRODUCTS	11
5 RANGE OF NOMINAL OUTSIDE DIAMETERS	12
6 TOLERANCES	12
7 DIRECTIONAL WHEELS	12
ANNEX DESIGNATION EXAMPLE OF BONDED ABRASIVE PRODUCT SPECIFICATION	13

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AUSTRALIAN/NEW ZEALAND STANDARD

Bonded abrasive products — General — Designation, marking, range of outside diameters and tolerances

1 Scope and field of application

This International Standard covers bonded abrasive products in general (grinding wheels, segments, sticks and bricks) excluding diamond, cubic boron nitride or boron carbide abrasive products.

It gives

- the designation;
- the marking;
- the main form and denomination of grinding wheels;
- the main profile of straight wheels;
- the range of nominal outside diameters;
- the tolerances on hole size.

This International Standard is general and will be completed by ISO 603.

2 References

ISO 286, *ISO system of limits and fits*.¹⁾

ISO 603, *Bonded abrasive products — Dimensions*.²⁾

ISO/R 1938, *ISO system of limits and fits — Part 2: Inspection of plain workpieces*.

ISO 6103, *Bonded abrasive products — Static balancing of grinding wheels*.³⁾

ISO 8486, *Bonded abrasive products — Grain size analysis — Designation — Testing of grain size distribution of macrogrits from F4 to F220*.

3 Designation

The complete designation of a bonded abrasive product consists, in order, of

- the shape;
- dimensions;
- specifications of internal nature;
- the maximum peripheral speed or rotation frequency.

The indication of shape is given by the type (see 3.1.2) completed, if necessary, by the profile (see 3.1.3).

In the designation the main dimensions shall be separated from secondary dimensions by a dash. Symbol letters other than D, T and H (D, U and H for types 27 and 28) shall appear before their numerical values in millimetres, separated by a comma (except H for threaded inserts types 16 to 19).

If the wheel includes threaded inserts, the indication of dimensions shall be completed with the thread specification (see 3.1.4).

The specifications of the constituents of the bonded abrasive product are as given in 3.2.

The maximum peripheral speed shall be expressed in metres per second (m/s), and rotational frequency in revolutions per minute (r/min).

Example:

A straight grinding wheel, outside diameter 300 mm, thickness 50 mm, hole 76,2 mm, abrasive aluminium oxide, grain size 36, grade L, structure 5, vitrified, maximum peripheral speed 35 m/s is designated:

Wheel type 1 — 300 × 50 × 76,2 — A 36 L 5 V — 35 m/s

1) At present at the stage of draft. (Revision of ISO/R 286-1962.)

2) At present at the stage of draft. (Revision of ISO/R 603, ISO/R 603/2, ISO 1117, ISO 2220, ISO 2933, ISO 3920 and ISO 3921, which all remain in force until the publication of ISO 603.)

3) At present at the stage of draft.