AS 4932.1—2001
ISO 9276-1:1998
ISO 9276-1:1998/Cor.1:2004
(Incorporating Amendment No. 1)
Reconfirmed 2021

Australian STANDARD

Representation of results of particle size analysis

Part 1: Graphical representation

STANDARDS Australia

This Australian Standard® was prepared by Committee CH-032, Particle Size Analysis. It was approved on behalf of the Council of Standards Australia on 16 March 2001.
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The following are represented on Committee CH-032:

- Australian Industry Group
- CMM Group
- Engineering Employers Association, S.A.
- Institution of Engineers Australia
- National Association of Testing Authorities Australia
- Queensland University of Technology
- Society of Manufacturing Engineering
- The University of Queensland
- University of Wollongong

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS 4932.1—2001
Representation of results of particle size analysis
Part 1: Graphical representation

RECONFIRMATION NOTICE

Technical Committee NT-001 has reviewed the content of this publication and, in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 21 July 2020.

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NOTES

AS 4932.1—2001
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Australian Standard®

Representation of results of particle size analysis

Part 1: Graphical representation

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PREFACE

This Standard was prepared by the Standards Australia Committee CH-032, Particle Size Analysis. This Standard is identical with and has been reproduced from ISO 9276-1:1998 *Representation of results of particle size analysis*, Part 1: *Graphical representation,* and its corrigendum, ISO 9276-1:1998/Cor.1:2004. Additional information for Australia is given in Appendix ZA to provide an alternative method (Gaudin-Schuhmann plot) to describe size distribution of these materials.

A1

NOTE: The Gaudin-Schuhmann plot is used by the mining industry and other process industries that crush and grind naturally occurring rocks and minerals in Australia.

This Standard incorporates Amendment No. 1 (May 2019). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to specify rules for the graphical representation of particle size analysis data in histograms, density distributions and cumulative distributions. It also established a standard nomenclature to be followed to obtain the distributions mentioned above from measured data. This part applies to the graphical representation of distribution of solid particles, droplets or gas bubbles covering all size ranges.

This Standard is Part 1 of a series, Part 2, when published will be on *Calculation of average particles sizes/diameters and moments from particle size distributions.*

As this Standard is reproduced from an International Standard the following applies:

(a) Its number appears on the cover and title page while the International Standard number appears only on the cover.

(b) In the source text, 'this part of ISO 9276' should read 'this Australian Standard'.

(c) A full point substitutes for a comma when referring to a decimal marker.

(d) Substitute 'mL' for 'ml' wherever it appears.

(e) Clause 3.1, symbol 'd' used to denote particle size. It is recognized that the symbol 'd' is used more commonly in Australia.

(f) The ISO document listed as a normative reference in Clause 2 has not been adopted as an Australian Standard.

The term 'informative' has been used in this Standard to define the application of the annex to which it applies. An 'informative' annex is only for information and guidance.

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AUSTRALIAN STANDARD

Representation of results of particle size analysis

Part 1: Graphical representation

1 Scope

This part of ISO 9276 specifies rules for the graphical representation of particle size analysis data in histograms, density distributions and cumulative distributions. It also establishes a standard nomenclature to be followed to obtain the distributions mentioned above from the measured data.

This part of ISO 9276 applies to the graphical representation of distributions of solid particles, droplets or gas bubbles covering all size ranges.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 9276. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 9276 are encouraged to investigate the possibility of applying the most recent edition of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 565:1990, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings.*

3 Symbols

3.1 General

In this part of ISO 9276, the symbol x is used to denote the particle size or the diameter of a sphere. However, it is recognized that the symbol d is also widely used to designate these values. Therefore, in the context of this part of ISO 9276, the symbol x may be replaced by d where it appears.

Symbols for the particle size other than x or d should not be used.

3.2 Symbol explanation

d particle size, diameter of a sphere (see 3.1)

i (subscript) number of the size class with upper limit x_i: $\Delta x_i = x_i - x_{i-1}$

