
**Hardmetals — Sampling and testing of
powders using sintered test pieces**

*Métaux-durs — Échantillonnage et essais des poudres au moyen
d'éprouvettes frittées*





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Foreword

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This document was prepared by Technical Committee ISO/TC 119, *Powder metallurgy*, Subcommittee SC 4, *Sampling and testing methods for hardmetals*.

This second edition cancels and replaces the first edition (ISO 4884:1978), which has been technically revised. The main changes compared to the previous edition are as follows:

- [Clause 2](#) has been revised;
- in [Table 1](#), second row: the reference on ISO 3326 has been replaced;
- in [Table 1](#), fifth row: the reference has been replaced by ISO 3738-1 and ISO 3738-2;
- in [Table 1](#), sixth row: the reference to ISO 3878 has been replaced by ISO 6507-1, ISO 6507-2, ISO 6507-3 and ISO 6507-4;
- in [Table 1](#), seventh row: the reference has been replaced by ISO 4499-1, ISO 4499-2 and ISO 4499-3;
- in [Table 1](#), eighth row: the reference has been replaced by ISO 4499-4;
- in [Table 1](#), ninth row: has been added;
- the Bibliography has been added.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Hardmetals — Sampling and testing of powders using sintered test pieces

1 Scope

This document specifies procedures for the sampling and testing of powder mixtures for the manufacture of hardmetals, using sintered test pieces. It also covers the preparation of test pieces.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3327, *Hardmetals — Determination of transverse rupture strength*

ISO 3369, *Impermeable sintered metal materials and hardmetals — Determination of density*

ISO 3738-1, *Hardmetals — Rockwell hardness test (scale A) — Part 1: Test method*

ISO 3738-2, *Hardmetals — Rockwell hardness test (scale A) — Part 2: Preparation and calibration of standard test blocks*

ISO 3954, *Powders for powder metallurgical purposes — Sampling*

ISO 4499-1, *Hardmetals — Metallographic determination of microstructure — Part 1: Photomicrographs and description*

ISO 4499-2, *Hardmetals — Metallographic determination of microstructure — Part 2: Measurement of WC grain size*

ISO 4499-3, *Hardmetals — Metallographic determination of microstructure — Part 3: Measurement of microstructural features in Ti (C, N) and WC/cubic carbide based hardmetals*

ISO 4499-4, *Hardmetals — Metallographic determination of microstructure — Part 4: Characterisation of porosity, carbon defects and eta-phase content*

ISO 6507-1, *Metallic materials — Vickers hardness test — Part 1: Test method*

ISO 6507-2, *Metallic materials — Vickers hardness test — Part 2: Verification and calibration of testing machines*

ISO 6507-3, *Metallic materials — Vickers hardness test — Part 3: Calibration of reference blocks*

ISO 6507-4, *Metallic materials — Vickers hardness test — Part 4: Tables of hardness values*

ISO 28079, *Hardmetals — Palmqvist toughness test*