
**Sintered-metal injection-moulded
materials — Specifications**

*Matériaux métalliques frittés pour moulage par injection —
Spécifications*



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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.

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The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 22068 was prepared by Technical Committee ISO/TC 119, *Powder metallurgy*, Subcommittee SC 5, *Specifications for powder metallurgical materials (excluding hardmetals)*.

Sintered-metal injection-moulded materials — Specifications

1 Scope

This International Standard specifies the requirements for the chemical composition and the mechanical and physical properties of sintered-metal injection-moulded materials.

It is intended to provide design and materials engineers with necessary information for specifying materials in components manufactured by means of the Metal Injection Moulding (MIM) process only.

It does not apply to structural parts manufactured by other powder metallurgy routes, such as press-and-sinter or powder-forging technologies.

2 Normative references

The following referenced documents are indispensable for the application 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 2740, *Sintered materials, excluding hardmetals — Tensile test pieces*

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

ISO 4498, *Sintered metal materials, excluding hardmetals — Determination of apparent hardness and micro-hardness*

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

ISO 6508-1, *Metallic materials — Rockwell hardness test — Part 1: Test method (scales, A, B, C, E, F, G, H, K, N, T)*

ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature*

ISO 9227, *Corrosion tests in artificial atmospheres — Salt spray tests*

IEC 60404-4, *Magnetic materials — Part 4: Methods of measurement of d.c. magnetic properties of magnetically soft materials*

ASTM D2638, *Standard Test Method for Real Density of Calcined Petroleum Coke by Helium Pycnometer*

ASTM D4892, *Standard Test Method for Density of Solid Pitch (Helium Pycnometer Method)*