



NSAI
Standards

Irish Standard
I.S. EN ISO 3908:2009

Hardmetals - Determination of insoluble (free) carbon - Gravimetric method (ISO 3908:2009)

I.S. EN ISO 3908:2009

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English Version

Hardmetals - Determination of insoluble (free) carbon -
Gravimetric method (ISO 3908:2009)

Métaux-durs - Dosage du carbone insoluble (libre) -
Méthode gravimétrique (ISO 3908:2009)

Hartmetalle - Bestimmung des unlöslichen (freien)
Kohlenstoffgehaltes - Gravimetrisches Verfahren (ISO
3908:2009)

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Contents

Page

Foreword.....3

Foreword

This document (EN ISO 3908:2009) has been prepared by Technical Committee ISO/TC 119 "Powder metallurgy".

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2010, and conflicting national standards shall be withdrawn at the latest by April 2010.

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Endorsement notice

The text of ISO 3908:2009 has been approved by CEN as a EN ISO 3908:2009 without any modification.

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I.S. EN ISO 3908:2009
**INTERNATIONAL
STANDARD**

**ISO
3908**

Third edition
2009-10-01

**Hardmetals — Determination of insoluble
(free) carbon — Gravimetric method**

*Métaux-durs — Dosage du carbone insoluble (libre) — Méthode
gravimétrique*



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Foreword

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ISO 3908 was prepared by Technical Committee ISO/TC 119, *Powder metallurgy*, Subcommittee SC 4, *Sampling and testing methods for hardmetals*.

This third edition cancels and replaces the second edition (ISO 3908:1985), which has been technically revised.

Hardmetals — Determination of insoluble (free) carbon — Gravimetric method

1 Scope

This International Standard specifies a gravimetric method for the determination of the mass fraction of insoluble (free) carbon in carbides and hardmetals.

This method is applicable to

- carbides of hafnium, molybdenum, niobium, tantalum, titanium, vanadium, tungsten and zirconium,
- mixtures of these carbides and binder metals, free of lubricant, and
- all grades of presintered or sintered hardmetals, produced from these carbides,

having a mass fraction of insoluble carbon between 0,02 % and 0,5 %.

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 3907:2009, *Hardmetals — Determination of total carbon — Gravimetric method*

3 Principle

Decomposition of the carbides and determination of the insoluble carbon by a gravimetric method.

4 Reagents

During the analysis, use only reagents of recognized analytical grade, and only distilled water or water of equivalent purity.

4.1 Nitric acid, $\rho = 1,20$ g/ml.

Add 2 000 ml of nitric acid, $\rho = 1,42$ g/ml, to 3 000 ml of water.

4.2 Hydrofluoric acid, $\rho = 1,12$ g/ml.

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