SLOVENSKI STANDARD
kSIST FprEN ISO 4499-1:2010

01-januar-2010

Trdine - Metalografsko določ evanje mikrostrukture - 1. del: Fotomikrografi in opisi (ISO 4499-1:2008)

Hardmetals - Metallographic determination of microstructure - Part 1: Photomicrographs and description (ISO 4499-1:2008)

Hartmetalle - Metallographische Bestimmung der Mikrostruktur - Teil 1: Gefügebilder und Beschreibung (ISO 4499-1:2008)

Métaux-durs - Détermination métallographique de la microstructure - Partie 1: Prises de vue photomicrographiques et description (ISO 4499-1:2008)

Ta slovenski standard je istoveten z: **FprEN ISO 4499-1**

ICS:

77.040.99	Druge metode za preskušanje kovin	Other methods of testing of metals
77.160	Metalurgija prahov	Powder metallurgy

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

FINAL DRAFT
FprEN ISO 4499-1

October 2009

ICS 77.040.99; 77.160

Will supersede EN 24499:1993

English Version

Hardmetals - Metallographic determination of microstructure - Part 1: Photomicrographs and description (ISO 4499-1:2008)

Métaux-durs - Détermination métallographique de la microstructure - Partie 1: Prises de vue photomicrographiques et description (ISO 4499-1:2008)

Hartmetalle - Metallographische Bestimmung der Mikrostruktur - Teil 1: Gefügebilder und Beschreibung (ISO 4499-1:2008)

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Foreword

The text of ISO 4499-1:2008 has been prepared by Technical Committee ISO/TC 119 “Powder metallurgy” of the International Organization for Standardization (ISO) and has been taken over as FprEN ISO 4499-1:2009.

This document is currently submitted to the Unique Acceptance Procedure.

This document will supersede EN 24499:1993.

ISO 4499-1, together with ISO 4499-2, cancels and replaces ISO 4499:1978, which has been technically revised.

In ISO 4499-2, a new section has been added for the quantitative measurement of the WC grain size of hardmetals. ISO 4499-3 and ISO 4499-4 are additional parts that will deal with the microstructures of hardmetals containing cubic carbides and Ti (C, N)-based hardmetals, and miscellaneous microstructural features, such as defects and non-stoichiometric phases (e.g. carbon and eta-phase). ISO 4499-3 and ISO 4499-4 are currently in development.

In standard WC/Co hardmetals the density is generally controlled so that only two phases WC and Co are present. The Co phase is an alloy and contains some W and C in solid solution. The WC phase is stoichiometric. If the composition is either high or low in total carbon content then it is possible to see a third phase in the structure. For a high C content this is graphite; for a low C content it is eta phase (η), typically an M6C or M12C carbide where M is (CoxWy). Metallographic determination of these phases will be outlined in ISO 4499-3.

ISO 4499 consists of the following parts, under the general title Hardmetals — Metallographic determination of microstructure:

— *Part 1: Photomicrographs and description*

— *Part 2: Measurement of WC grain size*

Endorsement notice

The text of ISO 4499-1:2008 has been approved by CEN as a FprEN ISO 4499-1:2009 without any modification.

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INTERNATIONAL STANDARD

ISO 4499-1

First edition
2008-09-15

Hardmetals — Metallographic determination of microstructure —

Part 1: Photomicrographs and description

Métaux-durs — Détermination métallographique de la microstructure —

Partie 1: Prises de vue photomicrographiques et description

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