
**Abrasive grains and crude — Chemical
analysis of silicon carbide**

*Abrasifs en grains ou en roche — Analyse chimique du carbure de
silicium*

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Published in Switzerland

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 5, *Grinding wheels and abrasives*.

This second edition cancels and replaces the first edition (ISO 9286:1997), which has been technically revised.

The main changes compared to the previous edition are as follows:

- the Scope has been shortened so that it only contains the subject of the document and the aspects covered;
- the structure of document has been revised in its entirety due to several new subclauses;
- new [Clause 3](#) "Terms and definitions" has been added;
- [4.3](#) (former 3.2) "Preparation of sample" has been revised;
- [4.4](#) (former 3.4) "Determination of surface carbon ($C_{\text{surf/free}}$)" has been revised, consisting of [4.4.2](#) "Detection by gravimetric method" and [4.4.3](#) "Detection by infrared absorption (IR)" with direct and indirect method;
- [4.5](#) (former 3.6) "Determination of surface silicon dioxide ($\text{SiO}_{2\text{surf}}$)" has been revised, consisting of [4.5.2](#) "Detection by HF/KF dissolving reactions" and [4.5.3](#) "Hydrofluoric acid loss"; and [4.5.4](#) "Molybdenum blue spectrophotometry" has been added;
- [4.6](#) (former 3.3) "Determination of surface silicon (Si_{surf})" has been revised; and [4.6.3](#) "Silver displacement method" and [4.6.4](#) "Molybdenum blue spectrophotometry" have been added;
- former 3.7 "Calculation of the content of residual silicon carbide (SiC_R)" has been moved to [4.10](#);
- former 3.8 and 3.9 for the determination of surface iron have been revised and moved to [4.9](#), consisting of the following detection methods: atomic absorption spectrometry (AAS) and induced coupled plasma (ICP);