AS 1141.26:2019

Australian STANDARD®

Methods for sampling and testing aggregates

Method 26: Secondary minerals content in igneous rocks

STANDARDS Australia

AS 1141.26:2019

This Australian Standard® was prepared by CE-012, Aggregates and Rock for Engineering Purposes. It was approved on behalf of the Council of Standards Australia on 6 December 2019.

This Standard was published on 20 December 2019.

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This Standard was issued in draft form for comment as DR AS 1141.26:2019.

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ISBN 978 1 76072 682 9

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First published as AS 1141.26—1996.
Second edition 2008.
Third edition 2019.

Preface

This Standard was prepared by the Standards Australia Committee CE-012, Aggregates and Rock for Engineering Purposes, to supersede AS 1141.26—2008, *Methods for sampling and testing aggregates, Method 26: Secondary minerals content in igneous rocks*.

The objective of this Method is to provide a microscopic procedure for determining the percentage of secondary minerals, including deuteric minerals, present in igneous rocks.

Major changes to this edition are as follows:

(a) A more detailed list of apparatus essential for conducting the examination of thin sections.

(b) A list of optional apparatus that may be useful in conducting the examination.

(c) Inclusion of apparatus essential for the preparation of thin sections.

(d) Inclusion of an Application clause, outlining limitations of this Method, and an alternative method when a more detailed petrological report is required.

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Australian Standard®

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1 Scope

This Method sets out the method for determining the content of secondary or deuteric minerals of rock spalls, bore cores and aggregates of igneous rocks using a petrological microscope.

This Method is not applicable to rocks that have developed a clearly identifiable metamorphic texture or mineral assemblage, or to sedimentary rocks.

NOTE 1 As secondary minerals are not necessarily deleterious, the method should not be used alone to provide a measure of the quality of the source rock or product.

NOTE 2 The method is suitable for continuing routine assessment of known rock sources as confirmation that the extent and type of secondary minerals have not changed significantly and do not exceed accepted specification limits.

This Method should not be used —

(a) to investigate new rock sources or for previously unknown rock types in known sources;

(b) to investigate other properties of rocks which may limit engineering applications (e.g. potential alkali aggregate reactivity or respirable silica content);

(c) to investigate failures; or

(d) when the genesis of the rock is unclear (e.g. is a deep seated rock type considered a melt or a high grade metamorphic).

In all these cases a more detailed petrological method is recommended.

NOTE 3 Throughout most of Australia the procedure of ASTM C-295 is usually employed.

2 Application

This Method is intended for use by persons whose capabilities are in accordance with Clause 7.

3 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.

AS 1141.1, *Methods for sampling and testing aggregates, Part 1: Definitions*

AS 1141.3.1, *Methods for sampling and testing aggregates, Method 3.1: Sampling—Aggregates*

AS 1141.3.2, *Methods for sampling and testing aggregates, Method 3.2: Sampling—Rock spalls and boulders*

ASTM C295, *Standard Guide for Petrographic Examination of Aggregates for Concrete*