

Australian Standard™

**Heavy mineral sand concentrates—
Sampling**

Part 3: Preparation of samples

This Australian Standard was prepared by Committee MN-004, Heavy Mineral Sands. It was approved on behalf of the Council of Standards Australia on 28 October 2003 and published on 24 December 2003.

The following are represented on Committee MN-004:

Australian Institute of Mining and Metallurgy
Chamber of Minerals and Energy of Western Australia

Additional interests participating in the preparation of this Standard:

Producers of heavy mineral sand concentrates

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Part 3: Preparation of samples

Originated as AS 2884.3—1986.
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PREFACE

This Standard was prepared by the Standards Australia Committee MN-004, Heavy Mineral Sands, to supersede AS 2884.3—1986, *Heavy mineral sand concentrates—Sampling, Part 3: Preparation of samples*.

Other parts in this series are as follows:

Part 1: Moving streams

Part 2: Sampling from stationary situations

Part 4: Determination of precision and bias

This revision confirms the sample preparation methods of AS 2884.3—1986. Editorial changes have been made to bring the Standard into line with current style.

Statements expressed in mandatory terms in footnotes to tables are deemed to be requirements of this Standard.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

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STANDARDS AUSTRALIA

Australian Standard

Heavy mineral sand concentrates—Sampling

Part 3: Preparation of samples

1 SCOPE

This Standard sets out the methods for the preparation of representative samples of heavy mineral sand concentrates collected in accordance with the procedures specified in AS 2884.1 and AS 2884.2.

AS 2884.1 deals with the sampling of concentrates from moving streams, and some sampling systems perform part of the sample preparation on-line. Aspects of on-line sample preparation are therefore covered in AS 2884.1.

NOTE: Samples containing more than about 1 percent moisture are unlikely to be free flowing and sample division should be carried out by the increment division method (see Clause 5.3.3).

2 OBJECTIVE

The objective of this Standard is to describe methods for the preparation of samples for the following procedures:

- (a) Determination of moisture.
- (b) Chemical analysis where a sample prepared to a nominal top size of 75 μm is suitable. The mass of the chemical analysis sample depends upon the analysis required. A minimum mass of 10 g is recommended.
- (c) Physical testing.

3 REFERENCED DOCUMENTS

The following standards are referred to in this standard:

AS	
1152	Specification of test sieves
2489	Method for the analysis of zircon sand concentrates
2489.5	Part 5: Determination of zirconium plus hafnium content (gravimetric method)
2489.11	Part 11: Determination of acid demand value
2715	Heavy mineral sand concentrates—Determination of pH value
2884	Heavy mineral sand concentrates—Sampling
2884.1	Part 1: Moving streams
2884.2	Part 2: Sampling from stationary situations
2884.4	Part 4: Determination of precision and bias
4350	Heavy mineral sand concentrates—Physical testing
4350.1	Part 1: Size analysis
4350.2	Part 2: Determination of heavy minerals and free quartz—Heavy liquid separation method
4614	Methods for the analysis of ilmenite
4614.1	Part 1: Determination of titanium content—Titrimetric method