

Model specification for the supply of limestone for acid sulphate sites

Version A – 2004

AustStab Limited



Preface

In situ stabilisation is a proven technique for the treatment of acid sulphate sites. A lack of design details, poor specification clauses, and poor construction practices by contractors with little knowledge of the process, quality control and materials may cause the design intent to not be achieved. Also, one of the problems faced by contractors during tendering is the variation of specifications. For example, in situ stabilisation specifications are likely to change from one region to another region or State. It is frustrating to find that one authority would specify binder content by volume and another by weight. This all leads to confusion and may lead to insufficient binder content in the treated material.

The specification contained in this document is available from the AustStab Internet web site at **www.auststab.com.au**. Amendments to the specification will be on the AustStab web site or you may telephone AustStab. It is hoped that the model specification will be widely used and the Association looks forward to your feedback, such that further amendments will reflect best practice.

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Members of AustStab

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AustStab Model specification for the supply of limestone for acid sulphate sites

1 General

This specification sets out the requirements for the supply of limestone for the use of neutralising acid sulphate soils. An off-white crushed limestone with the particle size finer than 2 mm.

2 References

Standards, specifications and test methods are referred to in abbreviated form (eg AS 1234) and for convenience, the full titles are given below:

Australian Standards

AS 1672.1 Lime and limestone, Part 1: Limes for building

AS 4489.2.1 Test methods for limes and limestones – Fineness - Wet Sieving

AS 4489.6.1 Test methods for limes and limestones – Lime Index – Available Lime

AS 4489.8.1 Test methods for limes and limestones – Free Moisture - Convection Oven

AS/NZS ISO 9002 Quality Systems, Model for quality assurance in production, installation and servicing

3 Definitions

For the purpose of this specification the following definitions apply:

Neutralising Value (NV) The chemical purity of the limestone (Calcium Carbonate). Pure calcium carbonate (limestone) has an NV of 100.

4 Quality System

The supplier must establish and maintain a Quality System in accordance with AS 9002 or equivalent as a means of ensuring that the product conforms to the specification requirements.

5 Material Requirements

The properties of limestone supplied must meet the requirements of Table 1.

Table 1 Material requirements for limestone.

	Property	Test Method	Requirement
(a)	Neutralising Value, calculated as % calcium carbonate	AS 4489.6.1	≥ 90.0%
(b)	Sieve Residue: % retained 2 mm sieve	AS 4489.2.1	≤ 5.0%
(c)	Moisture content before use	AS 4489.8.1	≤ 5.0%

6 Product Certification

The supplier must provide test results which verify that the product complies with Table 1 of this specification. The test results must be no longer than 3 months in age.

7 Product Identification

Each delivery must be clearly marked with the following information:

- (a) The name of the supplier.
- (b) The product name and/or number.
- (c) The CaCO_3 , MgCO_3 , Neutralising value, particle size analysis, and bulk density.
- (d) Date of testing.