



Aggregates and rock for engineering purposes

Part 6: Guidelines for the specification of armourstone



AS 2758.6:2019

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- ARRB (Australian Road Research Board)
- Ash Development Association of Australia
- Australasian (iron & steel) Slag Association
- Australasian Procurement and Construction Council
- Australian Asphalt Pavement Association Limited
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- Cement Concrete & Aggregates Australia — Cement
- Cement Concrete & Aggregates Australia — Concrete
- Engineering & Construction Laboratories Association
- National Association of Testing Authorities Australia
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Preface

This Standard was prepared by the Standards Australia Committee CE-012, Aggregates and Rock for Engineering Purposes, to supersede AS 2758.6—2008, *Aggregates and rock for engineering purposes, Part 6: Guidelines for the specification of armourstone*.

The objective of the standard is to provide designers and suppliers with information on the properties of rock sources that may allow the supply of large rock blocks suitable for the protection of sea walls, river banks, dam facings and other structures requiring protection against wave action or erosion caused by flowing water.

A list of all parts in the AS 2758 series can be found in the Standards Australia online catalogue.

The major changes in this edition are as follows:

- (a) Inclusion of additional sources of data which may prove useful in source investigation.
- (b) Deletion of some tables and Appendix B.
- (c) Inclusion of bibliography containing references to relevant standards.
- (c) Referencing of additional tests that have been used in some Australian projects and may prove useful in evaluating rock sources.

This Standard is a guideline document and is intended to be informative only. As such, all guiding statements use “should” to express a recommendation only.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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NOTES

Australian Standard®

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1 Scope

This Standard aims to provide guidance for investigating and specifying sources of natural, block-sized rock materials for use as armourstone on sea walls, harbour and river foreshores, or dam walls. Armourstone ranges from several kilograms up to many tonnes in mass. Dimensions of the armourstone may be the defining design requirement.

2 Application

These guidelines may form the basis of a works specification but cannot be used as a specification in themselves. The designer or specifier is presented with a series of considerations and alternative criteria from which to structure a project specification; however, the criteria are deliberately conservative and may not be cost effective in some instances. The designer is in the position to determine whether criteria suggested apply to the project under consideration and whether the project environment would allow relaxation of suggested criteria.

The selection of test procedures and test limits will be determined by the design philosophy and the design life of the completed structure. For the purposes of these guidelines, a design life of 40 years has been used. For many structures, where replacement of materials is practical, much shorter design life cycles may be appropriate, and lesser criteria may be successfully applied to the armourstone. For structures such as dams, a much longer design life may be required and the criteria will need to be adjusted accordingly.

The works specification should specify all the tests and the limits appropriate to the design application; however, a distinction may be made between those requirements used for selection and evaluation of the source material and those requirements used for quality control of product during the execution of a supply contract. It may not be necessary to apply the full range of tests during the execution of the contract. The frequency of testing should be detailed in the works specification.

3 Normative references

There are no normative references in this document.

NOTE Documents for informative purposes are listed in the Bibliography.

4 Terms and definitions

For the purposes of this document the terms and definitions given in AS 1141.1, AS 1726, AS 2758.1 and the following apply:

4.1

armourstone

rock of sufficient strength and durability for applications requiring material typically ranging in mass from several kilograms to many tonnes

Note 1 to entry: Mass and dimensions are dependent on the structure and location or environment of the structure being designed.

4.2

may

indicates the existence of an option