

Australian Standard®

Geotextiles—Methods of test

Method 5: Determination of puncture resistance—Drop cone method

PREFACE

This Standard was prepared by the Standards Australia committee CE-020, Geosynthetics, to supersede AS 3706.5—2000.

The determination of the puncture resistance with the drop cone makes use of the modified CBR mould. Evaluating the resistance to puncture, this test is particularly relevant in situations where coarse aggregates or riprap is dropped or pushed against the fabric.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

METHOD

1 SCOPE

This Standard sets out the method for determining the puncture resistance of geotextiles by the drop cone method for both atmospheric and wet conditioned specimens.

This method is applicable to both woven and non-woven geotextiles.

2 REFERENCED DOCUMENTS

The following documents are referenced in this Standard:

AS

1289 Methods of testing soils for engineering purposes

1289.6.1.1 Method 6.1.1 Soil strength and consolidation tests—Determination of the California Bearing Ratio of a soil—Standard laboratory method for a remoulded specimen

3704 Geosynthetics—Glossary of terms

3706 Geotextiles—Method of test

3706.1 Method 1: General requirements, sampling, conditioning, basic physical properties, and statistical analysis

3 PRINCIPLE

A circular specimen is gripped around its entire circumference by clamps. A specified cone is dropped onto the surface of the specimen. The diameter of the punctured hole, in combination with the drop height, gives a measure of the puncture resistance.