Australian Standard®

Geotextiles—Methods of test

Method 13: Determination of durability—Resistance to certain microbiological agents

FOREWORD

This Method was prepared after consideration of various similar procedures in ISO, Australian, and American (AATCC)* Standards. The fungal mixture from the AATCC method is believed to be the most appropriate, as other agencies, while suitable for testing normal textiles such as carpets, do not have the strength to attack geotextiles which are synthetic fabrics designed for in-ground service.

METHOD

1 SCOPE. The Standard sets out a method for determining the resistance of geotextiles to microbiological agents that are present in certain soils.

2 APPLICATION. This method is applicable to all geotextiles.

3 REFERENCED DOCUMENTS. The following documents are referred to in this Standard:

AS	
2193	Method of calibration and grading of force-measuring systems of testing machines
2243	Safety in laboratories
2243.3	Part 3: Microbiology
3704	Geotextiles—Glossary of terms
3706	Geotextiles—Methods of test
3706.1	Method 1: General requirements, sampling, conditioning and basic physical properties, and statistical analysis
AATCC	Test method 30-1-981—Fungicides, evaluation on textiles: mildew and rot resistance of textiles (Test 1)

4 PRINCIPLE. Specimens are subjected to burial in a prepared soil for a specified time. The durability is assessed by comparing the ultimate force and elongation at ultimate force of exposed specimens with that of unexposed specimens.

5 DEFINITIONS. For the purpose of this Standard, the definitions given in AS 3704 apply.

6 APPARATUS. The following apparatus is required:

(a) Constant-rate-of-extension (CRE) tensile testing machine complying with the requirements for a Grade B machine in accordance with AS 2193, and having an extension rate of 100 mm/min.

The machine should have an autographic recorder with adequate pen response or an interfaced computer to properly record the force/elongation curve.

For machines with no autographic recorder, appropriate measuring instruments are required to allow readings of the applied force and the corresponding elongation at a number of points up to failure.

* AATCC = American Association of Textile Chemists and Colourists.