Australian/New Zealand Standard™

Masonry units, segmental pavers and flags—Methods of test

Method 9: Determining abrasion resistance

This Standard incorporates Amendment No. 1 (August 2004) and Amendment No. 2 (September 2009). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

1 SCOPE

This Standard sets out the method for determining the abrasion resistance of dry segmental pavers and flags when subjected to the impact and rolling action of steel ball bearings.

2 PRINCIPLE

The specimens are secured, with their wearing faces inwards, over openings provided in a rectangular container holding a specified number and size of steel balls. The container is then rotated in one direction at 60 revolutions per minute for 3600 revolutions. During this time, the specimens are subjected to the impact and rolling action of the steel balls through the apertures in the sides of the container.

The mass loss of each specimen is then determined by difference, and converted to an 'abrasion index' by dividing by the bulk density of the specimen. The mass loss is corrected for any change in mass, may arise through uptake of moisture from the atmosphere during the test.

3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

4456	Masonry units, segmental pavers and flags—Methods of test	
4456.0	Part 0:	General introduction and list of methods
4456.1	Method 1:	Sampling for testing
4456.2	Method 2:	Assessment of mean and standard deviation

4 DEFINITIONS

For the purpose of this Standard, the definitions given in AS/NZS 4456.0 apply.

5 NOTATION

The following notation is used in this Standard:

m_1 = mass of test specimen before test, in grams

m_2 = mass of test specimen after test, in grams