AS/NZS 4456.18:2003
(Incorporating Amendment No. 1)

Australian/New Zealand Standard™

Masonry units, segmental pavers and flags—Methods of test

Method 18: Determining tensile strength of masonry units and segmental pavers

This Standard incorporates Amendment No. 1 (August 2004). 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 tensile strength (indirect splitting strength) of masonry units and segmental pavers of most types, sizes and materials. It describes the preparation of the specimens, the conditioning required before testing, the apparatus, the method of test, the method of calculation and the contents of the test report.

The test may not be suitable for very highly perforated units.

NOTE: This test is for determining the inherent tensile strength of the material, rather than for use in quality control testing.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS/NZS		
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

3 DEFINITIONS

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

4 PREPARATION OF SPECIMENS

The areas on both bed faces where the splitting load is applied shall be sufficiently flat to achieve an equal load distribution in the section to be split. In almost all cases no preparation will be required. When preparation is required it shall be limited to local grinding in the areas where the splitting rollers touch the specimen. In special cases where the weakest vertical cross-section is nearer than half the height from the end, further cutting or grinding may be necessary, as illustrated in Figure 1.

Units having perforations or any other variations in section shall be prepared so that the section tested is as near symmetrical from top to bottom as is reasonable.

If the units have intentionally manufactured frogs, indented printing, cavities, perforations, internal or external holes, these shall be left in place, i.e., the grinding process shall not significantly alter the contact area of the tested faces. Fillers shall not be used.

NOTE: If the inherent tensile strength for the material is to be determined (as distinct from the tensile strength of the unit), a representative specimen may be sawn from a solid section of the unit.

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