

Australian Standard™

Methods of testing concrete

Method 4.3: Determination of air content of freshly mixed concrete— Measuring air volume when concrete is dispersed in water

1 SCOPE

This Standard sets out the method for determining the air content of freshly mixed concrete using the volumetric method.

This Standard is suitable for concrete made with any type of aggregate, whether it be dense, cellular or lightweight.

NOTES:

- 1 This Standard may involve hazardous materials, operations, and equipment. The Standard does not purport to address all of the safety problems associated with its use. The user of this Standard should establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.
- 2 Data on the precision of the test method were not available at the time of publication. This information will be included when available.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

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- 1012 Methods of testing concrete
- 1012.1 Method 1: Sampling of fresh concrete
- 1012.2 Method 2: Preparation of concrete mixes in the laboratory
- 1012.4.1 Method 4.1: Determination of air content of freshly mixed concrete—Measuring reduction in concrete volume with increased air pressure

3 PRINCIPLE

The air content of freshly mixed concrete is determined by measuring the volume of water required to fill the air voids in the concrete.

4 APPARATUS

4.1 Volumetric air meter

4.1.1 General

The air meter used shall comply with Clauses 4.1.2 and 4.1.3 and shall consist of a bowl and a top section, as shown in Figure 1. (See Appendix A for calibration.)