Australian Standard™

AS 1774.23.1

Refractories and refractory materials—Physical test methods

Method 23.1: Abradability index—Oblique method

1 SCOPE

This Standard sets out a method for determining the abradability index of a refractory material at room temperature.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1774	Refractories and refractory materials—Physical test methods
1774.5	Part 5 The determination of density, porosity and water absorption
2243	Safety in laboratories (series)
2780	Refractories and refractory materials—Glossary of terms
TR 2	Certified reference materials
TR2.2-1	Float glass (for use in determination of abradability index by AS 1774.23.1) Preparation and certification of RSCRM 002-1

3 DEFINITIONS

For the purpose of this Standard, the definitions given in AS 2780 and that below apply.

3.1 Abradability index

A measure of the erodability of a refractory material, expressed as a volume of material lost under specified conditions.

4 PRINCIPLE

The surface of a test specimen is subjected to the abrasive action of specified air-blown alumina grit under controlled conditions and its mass loss is determined. The abradability index is then calculated from an equation which uses the bulk density of the material and a correction factor.

NOTE: The correction factor compensates for wear of the apparatus and variation of the abrasive power of the grit. It is determined by abrading a certified reference specimen under the same conditions as the test specimen.

5 SAFETY

For information of safety in laboratories, reference should be made to the relevant parts of AS 2243.