

Australian Standard™

AS 1774.4.1

Refractories and refractory materials— Physical test methods

Method 4.1: Preparation of test pieces— By casting

1 SCOPE

This Standard describes a procedure for laboratory preparation of test pieces by casting.

NOTE: The values obtained from test pieces prepared using this method may not correspond with those obtained from test pieces prepared using non-vibratory, or other vibratory, methods.

This Standard applies to dense, mediumweight and lightweight castables containing either hydraulic cements or other binders. It applies to conventional and low cement castables and any other type of refractory castable that can be installed by a casting process.

NOTE: Preparation of test pieces by gunning is covered by AS 1774.4.5, *Refractories and refractory materials—Physical test methods*, Method 4.5: *Preparation of test pieces—Gunning refractories*.

A method for measuring the consistency of unshaped castable refractories is given in Appendix A.

2 REFERENCE DOCUMENTS

The following documents are referred to in this Standard:

AS

- | | |
|---------|--|
| 1774 | Refractories and refractory materials—Physical test methods |
| 1774.30 | Method 30: Drying and firing schedules |
| 2243 | Safety in laboratories (series) |
| 2701 | Methods of sampling and testing mortar for masonry constructions |
| 2780 | Refractories and refractory materials—Glossary of terms |
| 4433 | Guide to the sampling of particulate materials |
| 4433.2 | Part 2: Preparation of samples |

ASTM

- | | |
|-------|---|
| C1445 | Standard test method for measuring consistency of castable refractory using a flow table |
| C1446 | Standard test method for measuring consistency and working time of self-flowing castable refractories |

3 DEFINITIONS

For the purpose of this Standard, the definitions in AS 2780 apply.