Australian Standard®

Methods of test for supplementary cementitious materials for use with portland cement

Method 3: Determination of loss on ignition

PREFACE

This Standard was prepared by the Standards Australia Committee on Supplementary Cementitious Materials for use with Portland Cement, to supersede (in part) AS 1129, *Fly ash for use in concrete, Part 3: Methods of Test.*

METHOD

1 SCOPE This Standard sets out the reference method for determination of loss on ignition of supplementary cementitious materials.

2 REFERENCED DOCUMENT The following document is referred to in this Standard:

AS
3582 Supplementary cementitious materials for use with portland cement
3582.1 Fly Ash

3 PRINCIPLE A specimen is ignited at a specified temperature for a designated period and the loss in mass is determined.

4 APPARATUS The following apparatus is required:

(a) Balance, capable of weighing the sample and crucible to an accuracy of 0.001 g.

(b) Desiccator.

(c) Inert crucible, capable of withstanding the ignition temperature and which has been ignited at the specified temperature to constant mass (m_c). It shall be stored in a desiccator until required.

(d) Muffle furnace, capable of being heated to the ignition temperature (See Table 1) and maintained at within ±50°C of that temperature.

5 PROCEDURE The procedure shall be as follows:

(a) Place a test portion of approximately 1 g of dried test sample in the tared crucible, spread it evenly in the crucible and weigh to the nearest 0.001 g (m_1).

(b) Heat the crucible and sample in the muffle furnace at the temperature shown in Table 1 for 60 ±5 min.

(c) Cool the crucible and contents in the desiccator.

(d) Reweigh the crucible and sample to the nearest 0.001 g (m_2).

TABLE 1
IGNITION TEMPERATURES

Material	Ignition temperature °C
Slag	950
Fly ash	750