

Australian Standard®

AS 1141.36:2017

Methods for sampling and testing aggregates Method 36: Sulfur in metallurgical slag, crushed rock or other pavement materials

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1 SCOPE

This Standard sets out the method for the determination of the amount of sulfur in metallurgical slag, crushed rock or other pavement materials expressed as total sulfur content and acid soluble sulfate content. It includes a test for total sulfur and a test for acid soluble sulfate. The method assumes that personnel conducting the procedure are trained and competent in safely conducting chemical tests and in the preparation of standard solutions.

2 PRINCIPLE

In the total sulfur test, sulfur is oxidized and brought into solution as sulfate. Soluble silica is precipitated by boiling with acid. Mixed trioxide (R_2O_3) contamination is removed by precipitation and filtration. Sulfur present is precipitated as barium sulfate, the mass of which is then determined. The content of sulfur containing compounds is expressed as percentage total sulfur (percent S).

Acid soluble sulfate is determined by a similar procedure to the total sulfur procedure; however, the oxidation step is omitted. Acid soluble sulfate content is expressed as percentage sulfur trioxide (percent SO_3 , sulfite).

3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1141	Methods for sampling and testing aggregates
1141.1	Part 1: Definitions
1141.2	Method 2: Basic testing equipment
1152	Specification for test sieves
2243	Safety in laboratories
2243.8	Part 8: Fume cupboards