Australian Standard®

Methods for sampling and testing aggregates
Method 28: Ball mill value

METHOD

1 SCOPE

This Standard sets out the method for the determination of the ball mill value of rock spalls, drill cores and ripped or broken rock. The method measures the quantity of fines produced by milling in the presence of water, and thereby provides a measure of the ability of the material to withstand breakdown in the presence of water.

This test is based on Texas Department of Transportation 'Test procedure for Ball mill method for determining the disintegration of flexible base materials' TxDOT Designation Tex-116-E (June 2000).

The method in its present form is intended to be used for, but not restricted to, testing sedimentary rock types.

2 REFERENCES

The following documents are referred to in this Standard.

AS	
1141	Methods of sampling and testing aggregates
1141.2	Method 2: Basic testing equipment
1141.3.2	Method 3.2: Sampling—Rock spalls and boulders
1141.11	Method 11.1: Particle size distribution by sieving
1152	Specification for test sieves

3 APPARATUS

3.1 Required apparatus

The following apparatus, complying with the relevant requirements of AS 1141.2, and the requirements below, is required:

(a) *Balance*—of adequate capacity, with a limit of performance not exceeding ±0.5 g.

(b) *Ball mill*—a mill generally in accordance with Figure 1, with internal dimensions of 259 mm diameter and 273 mm long, and a shelf with dimensions 83 mm ±3 mm and 8 mm ±3 mm. The cylinder shall be capable of rotating at 60 ±3 revolutions per minute.

(c) *Crusher (or other suitable equipment)*—for reducing the material to the required sizes.

(d) *Dishes, trays and container.*