

Australian Standard™

AS 1141.20.3

Methods for sampling and testing aggregates

Method 20.3: Average least dimension— Calculation (nomograph)

1 SCOPE

This Standard sets out the method for calculating the median size and average least dimension (ALD) of an aggregate using the nomograph method. The method is applicable to aggregates for bituminous surfacing having a nominal size 7 mm and greater.

NOTE: The first use of the term 'average least dimension' is attributed to F.M. Johnson, MM, in the paper 'Bituminous surface Treatment of Rural Highways' published by the New Zealand Society of Civil Engineers (Incorporated in 1935)

Present practice is outlined in the AUSTROADS publication (AP2/90, *Design of sprayed seals*, 1990).

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- 1141 Methods for sampling and testing aggregates
- 1141.11 Method 11: Particle size distribution by dry sieving
- 1141.15 Method 15: Flakiness index

3 DEFINITIONS

For the purpose of this Standard, the definitions below apply.

3.1 Average least dimension

The average of the thicknesses of all individual particles weighted in proportion to the surface areas covered when the particles lie with their least dimension upwards.

3.2 Median size

The theoretical sieve size through which 50 percent by volume of the aggregate will pass.

4 PROCEDURE

The procedure shall be as follows:

- (a) Determine the particle size distribution of the aggregate in accordance with AS 1141.11.
- (b) Determine the flakiness index of the aggregate in accordance with AS 1141.15.