

Australian Standard®

Methods for sampling and testing aggregates

Part 1: Definitions

1 SCOPE This Standard defines terms used in the AS 1141 series of Methods for the sampling and testing of aggregates used in concrete, asphalt, sprayed bituminous surfacings, pavements, railway ballast and for any other engineering purposes.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

1141 Methods for sampling and testing aggregates (all parts).

3 DEFINITIONS For the purpose of the AS 1141 series of Standards the definitions below apply.

3.1 Bound material—granular material to which an additive such as lime, cementitious material, bitumen or similar binding agent has been included to produce structural stiffness.

3.2 Coarse aggregate—aggregate in which the majority of particles are retained on a 4.75 mm AS sieve.

3.3 Coarse fraction—total portion of an aggregate which is retained on a 4.75 mm AS sieve.

3.4 Constant mass—aggregate is considered to be dry when the difference between successive determinations of mass, after additional drying for not less than 30 min, is not more than 1 percent of the total of previous moisture losses by drying.

NOTE: Normally drying is performed in an oven at 105°C to 110°C, but when a method requires drying at different temperatures, the specified temperatures should be used.

Material may be dried to constant mass using alternative methods such as microwave ovens, infra-red lights or hot plates, provided tests have shown that these techniques do not disrupt or weaken particles to the extent that the property being measured changes.

3.5 Fine aggregate—aggregate in which the majority of particles pass the 4.75 mm AS sieve.

3.6 Fine fraction—the total portion of an aggregate which passes a 4.75 mm AS sieve.

3.7 Graded aggregate—an aggregate of which more than 15 percent (by mass) of the total material is retained on at least three consecutive sieves in the set 75.0 mm, 37.5 mm, 26.5 mm, 19.0 mm, 13.2 mm, 9.50 mm, 6.70 mm, 4.75 mm, 2.36 mm, 0.600 mm and 0.075 mm. Crushed rock which consists of a mixture of fine and coarse aggregates, the coarse fraction being graded, shall be considered a graded aggregate for the purpose of this definition.

3.8 Nominal size—designation of an aggregate which gives an indication of the largest size particle present.