

Australian Standard®

Methods for sampling and testing aggregates

Method 51: Unconfined compressive strength of compacted materials

1 SCOPE This Standard sets out the method for determining the unconfined compressive strength of compacted specimens of unbound, bound and self-cementing materials.

This method is applicable to the control testing of field or plant mix materials and for the assessment of the strength of materials mixed in the laboratory.

The test is conducted on that portion of the material that passes the 19.0 mm sieve.

NOTE: The exclusion of a large proportion of stone coarser than 19.0 mm may have a major effect on the unconfined compressive strength determined compared with that obtainable with the material as a whole.

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

AS

1141	Methods for sampling and testing aggregates
1141.1	Method 1: Definitions
1141.2	Method 2: Basic testing equipment
1141.3.1	Method 3.1: Sampling—aggregates
1152	Specification for test sieves
1289	Methods of testing soils for engineering purposes
1289.2.1.1	Method 2.1.1: Soil moisture content tests—Determination of the moisture content of a soil—Oven drying method (standard method)
1289.5.1.1	Method 5.1.1: Soil compaction and density tests—Determination of the dry density/moisture content relation of a soil using standard compactive effort
1289.5.2.1	Method 5.2.1: Soil compaction and density tests—Determination of the dry density/moisture content relation of a soil using modified compactive effort
2193	Methods for calibration and grading of force-measuring systems of testing machines

3 DEFINITIONS For the purpose of this Standard, the definitions in AS 1141.1 and those below apply.

3.1 Bound material—a material to which a binder such as lime, cement, bitumen or other binding agent has been added to produce structural stiffness.

3.2 Laboratory density ratio—the ratio of the dry density of a test specimen to the maximum dry density of that material as determined by test in accordance with AS 1289.5.1.1 or AS 1289.5.2.1, expressed as a percentage.

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AS 1141.51 : 1996 : EN : COMBINED PDF

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