



Designation: D 5874 – 9502

Standard Test Method for Determination of the Impact Value (IV) of a Soil¹

This standard is issued under the fixed designation D 5874; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This test method covers the determination of the Impact Value (IV) of a soil either in the field or a test mold.

1.2 The standard test method, using a 4.5 kg (10 lbf) hammer, is suitable for, but not limited to, evaluating the strength of an unsaturated compacted fill, in particular pavement materials, soils, and soil-aggregates having maximum particle sizes less than 37.5 mm (1.5 in.).

1.3 By using a lighter 0.5 kg (1.1 lbf) hammer, this test method is applicable for evaluating lower strength soils such as fine grained cohesionless, highly organic, saturated, or highly plastic soils having a maximum particle size less than 9.5 mm (0.375 in.).

1.4 By performing laboratory test correlations for a particular soil using the 4.5 kg (10 lbf) hammer, IV may be correlated with an unsoaked California Bearing Ratio (CBR) or may be used to infer percentage compaction.

1.5 The values stated SI are to be regarded as the standard. The values stated in parentheses are given for information only.

1.6 All observed and calculated values shall conform to the guidelines for significant digits and rounding established in Practice D 6026. The method used to specify how data are collected, calculated, or recorded in this standard is not directly related to the accuracy to which the data can be applied in design or other uses or both. How one applies the results obtained using this standard is beyond its scope.

1.7 *This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

NOTE 1—The equipment and procedures contained in this test method are similar to those developed by B. Clegg in the 1970s at the University of Western Australia, Nedlands, Australia. Impact Value is also commonly known as Clegg Impact Value (CIV).

2. Referenced Documents

2.1 ASTM Standards:

¹ This test method is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.08 on Special and Control Tests.

Current edition approved Dec. 10, 1995; 2002. Published May 1996; December 2002. Originally published as D 5874–95. Last previous edition D 5874–95.