



Designation: D 6035 – 9602

Standard Test Method for Determining the Effect of Freeze-Thaw on Hydraulic Conductivity of Compacted or Undisturbed Soil Specimens Using a Flexible Wall Permeameter¹

This standard is issued under the fixed designation D 6035; 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 laboratory measurement of the effect of freeze-thaw on the hydraulic conductivity of compacted or undisturbed soil specimens (using Test Method D 5084 and a flexible wall permeameter to determine hydraulic conductivity). This test method does not provide steps to perform sampling of, or testing on, in situ soils that have already been subjected to freeze-thaw conditions.

1.2 This test method may be used with undisturbed specimens (block or thin-walled) or laboratory compacted specimens and shall be used for soils that have an initial hydraulic conductivity less than or equal to $1\text{E-}5$ m/s ($1\text{E-}3$ cm/s) (Note 1).

NOTE 1—The maximum initial hydraulic conductivity is given as $1\text{E-}3$ cm/s. This should also apply to the final hydraulic conductivity. It is expected that if the initial hydraulic conductivity is $1\text{E-}3$ cm/s, then the final hydraulic conductivity will not change (increase) significantly (that is, greater than $1\text{E-}3$ cm/s).

1.3 Soil specimens tested using this test method can be subjected to three-dimensional freeze-thaw (herein referred to as 3-d)

¹ This test method is under the jurisdiction of ASTM Committee D-18 on Soil and Rock and is the direct responsibility of Subcommittee D18.19 on Frozen Soil and Rock. Current edition approved Oct. 10, 1996. 2002. Published February 1997. September 2002. Originally published as D 6035-96. Last previous edition D 6035-96.

*A Summary of Changes section appears at the end of this standard.