

\*Table 2-9 is proposed to be incorporated in to Table 2-4 in section 2.1.2.

## 2.3—Standard Percolation Test

Revision: September 3, 2009

A percolation test checks on-site surveys and soil analysis data *only*. It is not to be used as the sole qualifier of a proposed disposal site's infiltrative capability. The most recent version of the following ASTM standards should be applied when evaluating a site's infiltrative capability:

- ASTM D3385, Standard Test Method for Infiltration Rate of Soils in Field Using Double Ring Infiltrometer
- ASTM D5093, Standard Test Method for Field Measurement of Infiltration Rate Using a Double Ring Infiltrometer with a Sealed Inner Ring

Percolation and application rates by soil type are shown in Table 2-9.

**Table 2-9. Percolation and application rates by soil type.**

Soil Design Subgroup	Soil Type	Percolation Rate (minutes/inch) <sup>a</sup>	Application Rate (GPD/ft <sup>2</sup> ) <sup>b</sup>
NS <sup>c</sup>	Gravel, coarse sand <sup>d</sup>	<4	NS
A-1	Medium sand	4-3	1.20
A-2a	Medium sand, poorly graded	4-5	1.0
A-2b	Fine sand, loamy sand	6-15	0.75
B-1	Sandy loam	16-30	0.60
B-2	Loam, silt loam	31-60	0.45
C-1	Sandy or silty clay loam <sup>e</sup>	45-60	0.30
C-2	Clay loam <sup>e</sup>	61-120	0.20
NS	Clays, organic muck, duripan, hardpan, claypan	>120	NS

a. Estimates only; actual percolation rates as determined using ASTM D5093 or ASTM D3385 may differ.

b. Application rates are for domestic wastes. A safety factor of 1.5 or more should be used for wastes of significantly different characteristics. Gallons per day per square foot (GPD/ft<sup>2</sup>).

c. Not suitable (NS) for installation of a subsurface sewage disposal system.

d. See medium sand definition for a material that may be acceptable for use.

e. Soils without expandable clays.