

Both tables from Handbook of Hydrology (Maidment 1993)

TABLE 5.5.2 Parameter Estimates for Horton Infiltration Model

Soil and cover complex	f_o , mm h ⁻¹	f_c , mm h ⁻¹	β , min ⁻¹
Standard agricultural (bare)	280	6–220	1.6
Standard agricultural (turfed)	900	20–290	0.8
Peat	325	2–29	1.8
Fine sandy clay (bare)	210	2–25	2.0
Fine sandy clay (turfed)	670	10–30	1.4

Source: Reproduced from Ref. 100 with permission.

TABLE 5.5.5 USDA Soil Texture Green-Ampt Infiltration Parameters

Soil texture class	Porosity ϕ	Wetting front soil suction head S_f , cm	Saturated hydraulic conductivity K_s ,* cm/h
Sand	0.437 (0.374–0.500)	4.95 (0.97–25.36)	23.56
Loamy sand	0.437 (0.363–0.506)	6.13 (1.35–27.94)	5.98
Sandy loam	0.453 (0.351–0.555)	11.01 (2.67–45.47)	2.18
Loam	0.463 (0.375–0.551)	8.89 (1.33–59.38)	1.32
Silt loam	0.501 (0.420–0.582)	16.68 (2.92–95.39)	0.68
Sandy clay loam	0.398 (0.332–0.464)	21.85 (4.42–108.0)	0.30
Clay loam	0.464 (0.409–0.519)	20.88 (4.79–91.10)	0.20
Silty clay loam	0.471 (0.418–0.524)	27.30 (5.67–131.50)	0.20
Sandy clay	0.430 (0.370–0.490)	23.90 (4.08–140.2)	0.12
Silty clay	0.479 (0.425–0.533)	29.22 (6.13–139.4)	0.10
Clay	0.475 (0.427–0.523)	31.63 (6.39–156.5)	0.06

* A method for determining the Green-Ampt K from K_s is given following Eq. (5.5.16). For bare ground conditions K can be taken as $K_s/2$.

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