

Table B-2 - Reference Table for Soil Permeabilities

Rate of Fall of Water (cm/min)	Field Saturated Hydraulic Conductivity - Kfs (cm/sec)					Rate of Fall of Water (cm/min)
	Type 1 (Coarse, gravelly, sands) a*(cm ⁻¹) = 0.36 C = 1.2		Acceptable Rate of Fall	Type 2 (Structured loams & clays) a*(cm ⁻¹) = 0.12 C = 1.17		
	Without temp. gradient	With temp gradient		Without temp. gradient	With temp gradient	
0.010	1.07E-05	6.41E-06	↑ Too Slow	1.48E-05	8.87E-06	0.02
0.020	2.14E-05	1.28E-05		3.70E-05	2.22E-05	0.05
0.050	5.34E-05	3.21E-05		5.54E-05	3.33E-05	0.075
0.075	8.00E-05	4.80E-05		7.39E-05	4.43E-05	0.100
0.100	1.07E-04	6.41E-05		8.00E-05	4.80E-05	0.108
0.125	1.33E-04	8.00E-05	↓ Acceptable Range	1.33E-04	8.00E-05	0.181
0.200	2.14E-04	1.28E-04		1.48E-04	8.87E-05	0.200
0.500	5.34E-04	3.21E-04		3.70E-04	2.22E-04	0.500
1.000	1.07E-03	6.41E-04		7.39E-04	4.43E-04	1.000
2.000	2.14E-03	1.28E-03		1.48E-03	8.87E-04	2.000
3.000	3.21E-03	1.92E-03		2.22E-03	1.33E-03	3.000
4.000	4.27E-03	2.56E-03		2.96E-03	1.77E-03	4.000
5.000	5.34E-03	3.21E-03		3.70E-03	2.22E-03	5.000
6.000	6.41E-03	3.85E-03		4.43E-03	2.66E-03	6.000
7.000	7.48E-03	4.49E-03		5.17E-03	3.10E-03	7.000
7.490	8.00E-03	4.80E-03		5.54E-03	3.33E-03	7.500
7.500	8.01E-03	4.81E-03	↑ Too Fast	8.00E-03	4.80E-03	10.830
8.000	8.55E-03	5.13E-03		1.11E-02	6.65E-03	15.000
10.000	1.07E-02	6.41E-03		1.33E-02	8.00E-03	18.050
12.480	1.33E-02	8.00E-03		1.48E-02	8.87E-03	20.000
25.000	2.67E-02	1.60E-02		1.85E-02	1.11E-02	25.000
50.000	5.34E-02	3.21E-02		3.70E-02	2.22E-02	50.000
100.000	1.07E-01	6.41E-02		7.39E-02	4.43E-02	100.000
1000.000	1.07E+00	6.41E-01		7.39E-01	4.43E-01	1000.000
This table is based on the following assumptions: Internal Reservoir Diameter D = 7.6 cm Well Hole Diameter d = 7 cm Height of Water in Well H = 10 cm Temperature T = 20 °C Temperature Gradient column is based on soil temperature Ts = 4°C and water temperature Tw = 20°C						