

Estimation of Vibration Levels

$$v = \frac{C \sqrt{W}}{r}$$

v = Estimated ppv in mm/s

C = a parameter related to soil type and hammer

W = The hammer energy per blow or cycle (Joules/blow or J/cycle)

r = The horizontal distance from the piling operation to point of interest

Driving method	Ground Conditions	C
Impact	Very stiff cohesive soils, dense granular media, rock fill with large solid obstructions	1.0
	stiff cohesive soils, medium dense granular media compact fill	0.75
	Soft cohesive soils, loose granular media, loose fill organic soils	0.5
Vibratory	All soil conditions	0.7*

*based upon EC3

Input

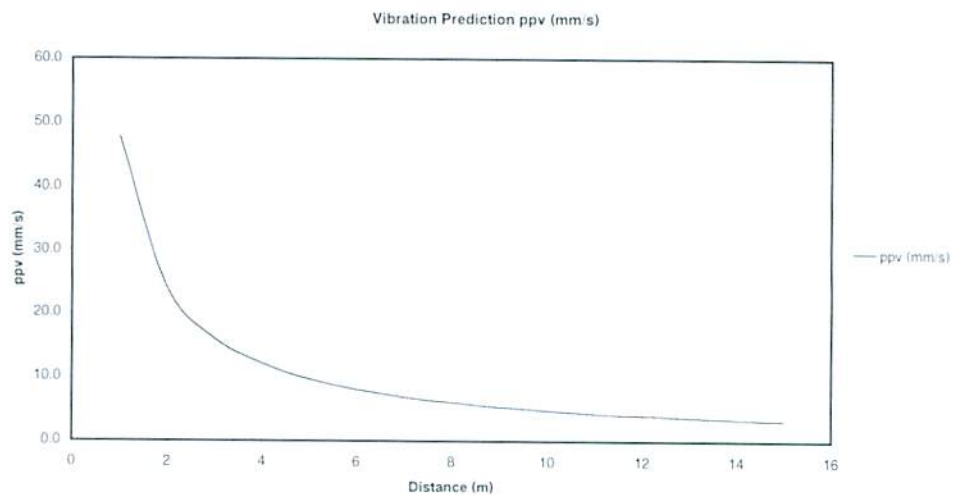
C = 0.7

W = 4665 Joules / cycle

r = 5 m

Formula ppv v = 9.6 mm/s

Distance (m)	ppv (mm/s)
1	47.8
2	23.9
3	15.9
4	12.0
5	9.6
6	8.0
7	6.8
8	6.0
9	5.3
10	4.8
11	4.3
12	4.0
13	3.7
14	3.4
15	3.2



This information is offered in good faith and is for information only. Predicted levels may be exceeded in practice.