

Abstract

Z-TYPE STEEL SHEET PILE

Provided is a Z-type steel sheet pile where all of economic efficiency, workability and soundness are optimized. The Z-type steel sheet pile according to the present invention includes: a web; flanges which are formed on both edges of the web; and joints which are formed on edge portions of the flanges, wherein the relationship among a geometrical moment of inertia per wall width of 1m I (cm^4/m), a weight per unit wall area W (kg/m^2), penetration resistance R and a web angle θ ($^\circ$) when a steel sheet pile wall is formed is set so as to satisfy a following group of formulae (A) or a following group of formulae (B).

Group of formulae (A):

$$(W/I) \times R \leq 0.004, \text{ and}$$

$$2.65 \times 10^{-4} \times I + 22 \leq \theta \leq 2.80 \times 10^{-4} \times I + 48 \quad (30,000 \leq I < 80,000)$$

$$2.65 \times 10^{-4} \times I + 22 \leq \theta \leq 70 \quad (80,000 \leq I < 180,000)$$

Group of formulae (B):

$$0.004 < (W/I) \times R \leq 0.006, \text{ and}$$

$$2.80 \times 10^{-4} \times I + 44.6 < \theta \leq 80 \quad (30,000 \leq I < 80,000)$$

$$67 < \theta \leq 80 \quad (80,000 \leq I < 200,000)$$

Fig. 1