Federation of Piling Specialists
Testing Datasheet No 14

Pile Integrity Testing using Cross Hole Sonic Logging

Criteria for Evaluating Data

Cross Hole Sonic Logging evaluates the concrete quality in piles by passing an acoustic signal between a transmitter lowered into an access tube and a receiver lowered into a second tube.

The most common criteria for evaluating the data are the First Arrival Time (FAT) and the signal energy. Quantitative evaluation of concrete piles using the limits below is recommended;

Evaluation	Increase in FAT		Reduction in signal energy
Good	0 to 10%	and	< 6 dB
Questionable	11 to 20%	or	6 to 9 dB
Flaw	21 to 30%	or	9 to 12 dB
Defect	> 31%	or	> 12 dB

March 2008