

ANCHOR PILE SPECIFICATION SHEET

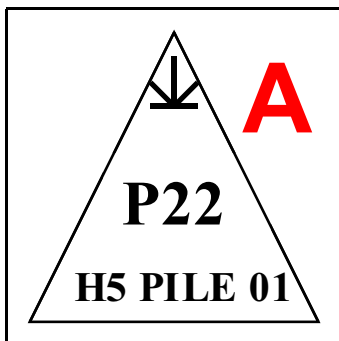
ANCHOR PILE - Specification

1. Anchor Pile Definition:

Anchor piles are required to resist lateral loads with or without being braced depending on circumstances and an ordinary or standard house pile is required to carry a vertical load. The Anchor pile is used in a more critical application and therefore the strength characteristics have much greater values associated, compared to that of an Ordinary pile.

Below are excerpts from **NZS 3605: 2001**, offering a brief understanding of the strength values and generalised requirements of an Anchor pile.

- The lateral load capacity of timber pile foundation systems are set out in **NZS 3604**. The most heavily loaded are anchor piles and braced piles which are required to have a capacity of 160 Bracing Units (BUs). Driven cantilever piles are required to have a capacity of 70BUs. At the maximum permitted height for these piles and considering the seismic response of timber pile foundation systems, the bending moment demand is 6.0, 4.7 and 4.4kNm respectively for anchor, driven cantilever and braced piles. 125mm square sawn timber piles meeting No.1 framing quality are sufficient for a bending demand of 4.8kNm. Hence the anchor piles need special care in their selection and proof testing is considered to be the only means to guarantee their strength. Ordinary piles carry vertical loads and therefore have a minimal required bending capacity.
- Strength testing Anchor piles shall **(a)** Sustain without signs of distress a proof test bending moment of 5 ± 0.25 kNm when testing in accordance with Appendix B; or **(b)** Be proof tested annually in batches of 100 piles to a bending moment of 6 ± 0.3 kNm as described in Appendix A.
- Anchor piles shall be of Pinus species, treated to H5 of **NZS 3640**. Where a timber pile is cut, notched, bored or otherwise processed after treatment the processed area shall be well dried (no visible wetness and dry to touch) and be brush-treated with a liberal application of either creosote, zinc naphthenate, TBTO (bis-(tri-n-butyltin) oxide) or TBTN (bis-(tri-n-butyltin) naphthenate). The surface shall not be cut for fixings and other purposes closer than 150mm to the finished ground level.
- Anchor piles shall be branded to meet the requirements of **NZS 3640** including the provision that the brand shall be placed one third of the length from the top and facing the top. Anchor piles shall be branded with the letter "A". The "A" can be incorporated with the brand as illustrated below.



"A" Anchor Pile Identification Mark. All other identification marks are as per ordinary piles and shall meet the requirements of **NZS 3640**.