

INTISARI

Salah satu produk dari beton pracetak adalah *Corrugated Concrete Sheet Pile* (CCSP) yang didesain dengan beberapa tipe sesuai dengan SNI yang berlaku. Produk tersebut digunakan sebagai turap untuk penahan tanah. Produk CCSP termasuk kategori beton prategang yang dalam proses produksinya tulangan ditarik terlebih dahulu lalu dicor beton setelahnya. Proses penarikan tulangan ini dinamakan *stressing* yang akan menghasilkan nilai elongasi atau penambahan panjang pada tulangan. Metode produksi *Corrugated Concrete Sheet Piles* tipe W500 di PT Aneka Dharma Persada terdapat sembilan tahapan meliputi *moulding*, *install pc-strand*, *stressing* dan pengecekan nilai elongasi, pembesian, pengecoran, *release*, *marking* produk, *demoulding*, *handling/langsir*. Evaluasi dilakukan dengan dua aspek yaitu peninjauan terhadap desain dan produksi di lapangan. Hasil evaluasi terhadap desain meninjau pada *losses of prestress*, *Cracking Moment*, dan regangan. Hasil dari peninjauan terhadap desain masih dalam rentang aman. Sedangkan evaluasi terhadap produksi di lapangan meninjau terhadap nilai elongasi *pc-strand* yang dilakukan selama 20 hari di PT Aneka Dharma Persada adalah sebesar -0,21%. Nilai tersebut memenuhi persyaratan dari SNI yang berlaku. Sehingga dapat dinyatakan bahwa pelaksanaan *stressing* pada PT Aneka Dharma Persada sudah memenuhi standar.

Kata Kunci : *Corrugated Concrete Sheet Pile*, Beton Pratarik, Metode Produksi, Elongasi

ABSTRACT

One of the products of precast concrete is the Corrugated Concrete Sheet Pile (CCSP), which is designed in several types according to the applicable Indonesian National Standards (SNI). This product is used as a retaining wall for soil stabilization. CCSP is classified as prestressed concrete, where the reinforcement is tensioned prior to concrete casting. This tensioning process, known as stressing, results in elongation or an increase in the length of the reinforcement. The production method for W500-type Corrugated Concrete Sheet Piles at PT Aneka Dharma Persada consists of nine stages, including moulding, pc-strand installation, stressing and elongation value checking, reinforcement, casting, release, product marking, demoulding, and handling/transportation. The evaluation is conducted from two aspects: design review and field production. The design evaluation covers losses of prestress, cracking moment, and strain. The results of the design review indicate that all parameters remain within the safe range. Meanwhile, the field production evaluation, which examined the elongation value of the pc-strand over a 20-day period at PT Aneka Dharma Persada, recorded a value of -0.21%. This value complies with the requirements of the applicable SNI. Therefore, it can be concluded that the stressing process at PT Aneka Dharma Persada meets the required standards.

Keywords: *Corrugated Concrete Sheet Pile, Prestressed Concrete, Production Method, Elongation*