

## Refleksi gelombang pada pemecah gelombang tenggelam blok beton berkait / I Ketut Dharma Setiawan, Juventus W.R. Ginting

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### Abstrak

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When a large dimension of rock needed for an armored layer of breakwater, the scarcity of it became a major adversity, because of that many research subject of using concrete as a substitute for rock performed. One of the research are the usage of concrete block for submerged breakwater as a method for avoiding a very large concrete block, but still able to withstood wave forces. The key is in the interlocking of each concrete block so it could achieve the desired result with a lesser dimension concrete block. The research was performed in Laboratory of Coastal Experimental Station, Water Resource Research Center, using a 2D channel. The facility used were flume channel, regular wave generator machine, wave dumper, wave probe, and computer for processing data. The experiment indicate that the wave energy attenuation depends on the dimension of interlocking concrete block type submerged breakwater. The dimension represented in the form of relation of the distance of water level to structures crest and the crests width. The breakwater performance of the concrete block is quite useful as an underwater coastal protection building viewed from reflection with a reflection coefficient of 34.7% at  $(h/d) / h = 0$  and the peak width of  $B = 2.0$