PHYSICAL TEST MODEL OF COMPOSITE BREAKWATER ON VARIOUS WAVE SPECTRUM

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ABSTRACT

Composite breakwater is a structure to protect an area from the wave attack. The structure effectively reduce waves so it can protect a port. Composite breakwater is made of concrete and sand bags were added in front of the structure to reduce reflection. This study aims to determine the effect of the spectrum to coefficient transmission and coefficients reflection. Model is the fixed model, with fixed depth, and while wave height (H) and wave period (T) is varied. The spectrums used in this study are ISSC, JONSWAP, and ITTC. Based on data analysis performed, the smallest transmission coefficient is occurs on ITTC spectrum and the largest reflection coefficient occurs on ISSC spectrum.

Key words: composite breakwater, wave spectrum, transmission coefficient, reflection coefficient