

ABSTRACT

Research on a plate collapse under the weight of the blast has been carried out by several experts. At first, a study of the blast load is done by laboratory experiments. Over time, methods that can be used to assist in analyzing the behavior of the plate due to blast loads found. Design for common building floor slabs such as hotels, hospitals, schools and apartments need to take into account the weight of a blast. In this study, the authors will analyze the dynamic response of the building floor plate due to the trapezoidal dynamic blast load. This study will be analyzed by assuming orthotropic plate with semi-rigid placement. Dynamic response of slab due to the burden of this blast will be influenced by several factors including the thickness of the plate, the value of the damping ratio, and the position of the load. By doing the analysis, can be seen how the factors affect the dynamic response of the building floor slabs due to trapezoidal blast load. Dynamic response of slab that will be analyzed includes the maximum deflection plates, moments and shear forces.

Keywords: *dynamic blast load, dynamic response of slab, orthotropic, semi rigid, maximum deflection, moments, shear force*