

Impact Characteristics of Fragile Cover Based on Numerical Simulation and Experimental Verification

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Abstract : In order to acquire stable impact performance of cover, the factors influencing the impact force of the cover were analyzed and researched. The influence of impact factors such as impact velocity, impact weight and fillet radius of warhead was studied by Orthogonal experiment. Through the range analysis and numerical simulation, the results show that the impact velocity has significant influences on impact force of cover. The impact force decreases with the increase of impact velocity and impact weight. The test results are similar to the numerical simulation. The cover broke up into four parts along the groove.

Keywords : fragile cover, numerical simulation, impact force, epoxy foam

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