EXPERIMENTAL AND NUMERICAL INVESTIGATION OF THE HEAD-ON COLLISION OF BLAST WAVES WITH POROUS MATERIALS

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The equations governing the phenomenon in which a planar shock wave collides head-on with a cellular material and interacts with it were developed by Mazor et al. (1993) using a Lagrangian approach. In addition, the numerical approach for solving the equations was briefly outlined there. In this study we report on experimental and numerical results of the head-on reflection of a planar shock wave with an open cell polyurethane foam. Foams as mentioned by Gibson and Ashby (1988) and summarized in Mazor et al. (1992), are one of the two general types of cellular materials.