

# INVESTIGATION OF THE BEHAVIOR OF LAMINATED GLASS UNDER IMPACT LOADS

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## ABSTRACT

This paper presents experimental and numerical investigation of the behavior of laminated safety glass under dynamic load. The research was done at the Impact Pendulum Laboratory of the BGU Protective Technologies R&D Center (PTR&DC). The experiments were conducted using a three-layer laminated glass with strain gauges embedded between the glass layers. Several static and dynamic experiments were done, in order to measure the strains in each layer of the glass. The experimental results are used to calibrate a numerical FE model. The model assumes linear material properties for both the glass and the PVB interlayer. Preliminary results show good agreement with the experimental data. This work is a stage of a continuing research that eventually should provide better understanding on the behavior of safety windows under blast and impact loads. In the next stage, the calibrated numerical model will be verified by simulating high-explosive field tests and impact tests.