

# MULTI-LAYERED LAMINATED GLASS UNDER IMPACT LOADING

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The intent of this paper is to present an experimental setup and a numerical simulation technique for the treatment of multi-layered laminated glass under impact loading.

In order to investigate the resistance of multi-layered glass against impact, the suggested experimental setup allows for an assessment of the structural component at well defined impact energy.

The computational model for laminated safety glass consists of shell elements for the glass components and solid elements to simulate the ultimate load carrying capacity of the polyvinyl butyral (PVB) interlayer. Glass is described by linear elasticity with a brittle failure criterion and a visco-elastic material model is used for the interlayer.

The applicability of the presented model is shown by comparison of the numerical simulations to the experimental results from the impact test. The model, however, is not restricted to impact loadings but can also be used in simulations of laminated glass under blast loadings.