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On the shock response of soda lime glass ZVI ROSENBERG, RAFAEL, NEIL BOURNE, University of Manchester — The response of brittle materials to shock has attracted attention for the past thirty years. Yet there are still unexplained aspects to the observed behaviour. In particular it is agreed that a failure front propagates behind the shock, travelling at an approximately constant velocity. Over the past years we have used embedded sensors, remote imaging and surface velocity measurement to track these phenomena. In the present paper, lateral measurements of strain are used to track three dimensional flow occurring behind the failure front. This is related to observations of the various thresholds observed in behaviour commented upon previously. A review of the behaviour of soda lime glass under impact is presented to unify these data.

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