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**Shock Induced Shear Strength in Two HMX Based Polymer Bonded Explosives** JEREMY MILLETT, PETER TAYLOR, AWE, Aldermaston, GARETH APPLEBY-THOMAS, Cranfield University — The response of energetic materials to shock loading has largely concentrated on their detonation behaviour. However, they can also be considered to be structural materials in their own right, and hence their response to a purely mechanical shock loading is also of interest. Therefore we present results from two HMX based polymer bonded explosives, EDC37 and EDC32, where we investigate the shock induced shear strength behind the shock front. Results are discussed in terms of microstructure and differences of the binder phases.

Jeremy Millett  
AWE, Aldermaston

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