

### High-Performance Thermobaric Explosive Formulation Using Al/F Compound

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This study was carried out to develop high-performance thermobaric metal augmented charge (MAC) explosive formulations. In this study, the MAC explosive formulations were designed to maximize their blast pressure/impulse performance in open bunker compared to TNT or Tritonal as a standard explosive. Several experiments related to blast performance tests in open bunker and process stability tests were performed. In the results, the performance of the MAC-3B&4B formulations were most excellent. TNT volume-based performance ratios(TVPRs) of the formulations for the open bunker-blast pressure/impulse were analyzed as 2.0447/1.5756. In other words, the developed high-performance thermobaric MAC explosive formulations showed enhanced blast performance in open bunker better than TNT or Tritonal as a standard explosive.