EXPERIMENTS ON INTERNAL DETONATION OF VARIOUS CAST EXPLOSIVES

Mehmet Sarper YAVUZ, Tarık YÜCEL, Zekeriya Taner KAYA, Samet GÜRÜN, Değer ÇETİN

TÜBİTAK SAGE (The Scientific and Technological Research Council of Turkey, Defence Industries Research and Development Institute), Ankara, Turkey

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In this study, various enhanced blast plastic bonded explosives developed by TUBITAK SAGE having different formulations have been detonated in closed environments in order to identify their behavior in terms of the peak blast pressure, quasistatic pressure, venting time and temperature. The obtained results were compared with the ones belonging to different types of plastic bonded explosives as well as conventional explosives (TNT) with a goal to choose the best compromise between enhanced blast effect increase and castability. The study includes small scale tests performed in a detonation chamber and full scale tests which were performed in a concrete structure as well as comparisons of the obtained results with numerical simulations.