

Detonation Properties of Explosives Containing Nanodiamond(UDD)

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Ultra disperse diamonds (UDD) powder with 4-6 nanometer particle size which is synthesized by detonation, is known to use for many metallurgical and coating applications. In this paper, explosive performance was determined by air blast and plate dent depth test in closed vessel. An explosive compound is used that is consisted of 90-95% explosive powder (e.g. TNT, HMX or RDX) and 5-10% UDD. The compound is prepared by applying ball mill. In these experiments, results were compared with explosives without UDD as reference explosive. The pure explosives (references) were grinded by wet ball mill. The results of experiments showed that explosives containing UDD have performance less than explosives without UDD.

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