

Abstract Submitted  
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**Improvement of Characteristics of Artificial Graphite Blocks for Electrical Discharge Machining According to Molding Pressure Variation**<sup>1</sup> YERI CHUN, SANG-MIN LEE, DONG-WOOK KO, JONG-BOK KIM, JAE-SEOUNG ROH, Kumoh national institute technology, Materials Science and Engineering — In this study, artificial graphite blocks were fabricated under different molding pressure conditions (90, 120, 150 MPa) to improve the electrical conductivity and flexural strength of the artificial graphite blocks for electric discharge machining. Manufactured artificial graphite blocks are electrical resistivity test (KS L 3409: 2010) for measuring electrical conductivity, three-point bending test method (KS L 3409) using a universal testing machine (QUASAR 100 of GALDABINI) for measuring the bending strength, density Archimedes method (KS L ISO18754: 2012 (ISO 18754: 2003)) was carried out for the measurement. As the forming pressure increased from 90 to 150 MPa, the electrical conductivity and flexural strength increased. Compared to the molding pressure of 90 MPa, the electrical conductivity was 2.64%, the bending strength was 22.38%, and the density was 0.85% at 150 MPa. In manufacturing the graphite block, the increase in the molding pressure may affect the electrical conductivity and the flexural strength of the artificial graphite block for electric discharge machining.

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