

## ABSTRACT

Co-Cr-Mo (F-75) alloys are commonly used for surgical implants because of their strength, corrosion resistance and biocompatibility. Conventionally, fabrication of the alloys has been established using casting technique. In this study, F-75 alloys were fabricated by using powder metallurgy method because of its effective cost and easier to fabricate. The influence of sintering temperature was studied by focusing on the physical properties and microstructures. The powders were mixed with 2 wt. % of binder and compacted at 500 MPa. The green body was sintered at three different temperatures (1250 °C, 1300 °C and 1350 °C) in argon atmosphere for 30 minute. Result indicates that the bulk density and grain size increase with increasing of sintering temperature.

**Keywords:** Powder metallurgy, Sintering temperature, Physical properties, Microstructures