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**Production and Characterization of Powder Injection Molded (PIM) pure Titanium parts**

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Powder injection molding (PIM) is a relative new technique to produce structural parts of special materials such as titanium based alloys. Titanium parts are difficult to produce by PIM technology because of high reactivity of this element when exposed to high temperatures in atmospheres containing elements such as O, N, or C. The purpose of this work was to produce components of pure titanium by PIM, with acceptable properties for commercial applications. To reach these objectives, the manufacture processes were changed using a new binder system and working with different sintering cycles. For titanium parts, properties such as density, yield strength, surface finishing and porosity are very important for their performance. Preliminary results show an improvement on the mechanical performance of test sample regarding the sintering conditions. Moreover, changes on the binder system represented a decrease on the absorption of carbon, which is a main problem during debinding and sintering of Ti parts. Characterization was carried out through density measurements, hardness tests and microstructural analysis.