

Innovative Binder Jet 3D Printing Process for Cobalt-Chrome Products

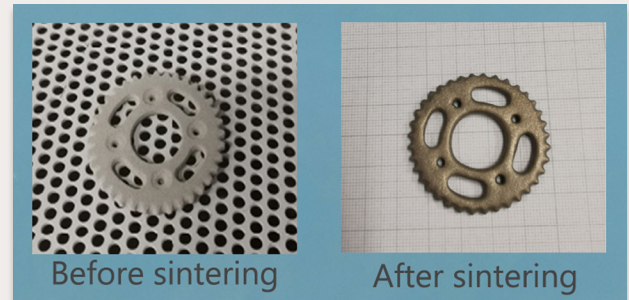
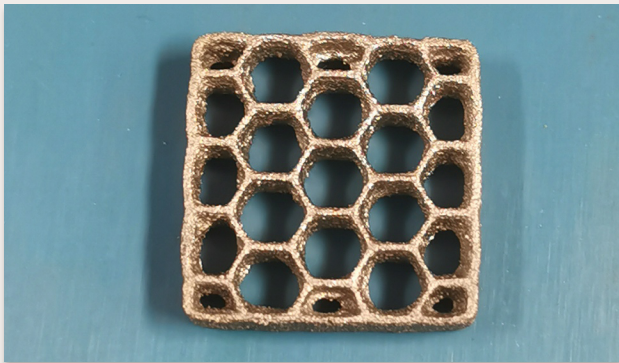
Technology Overview

The invention relates to the field of 3D printing of cobalt-chrome products using binder jet method. The invention more particularly relates to a cobalt-chrome (CoCr) powder granulation process and binder solution preparation. A proprietary granulation process has been developed to improve the powder flow. In addition, a unique binder solution has been formulated to bind CoCr powder during the 3D printing process. After printing, the green compact part can be completely sintered into full density.

Features & Specifications

This technology consists of the following:

- cobalt-chrome powder granulation process,
- binder solution preparation,
- binder jet 3D printing (BJ3DP), and
- sintering process.



Customer Benefits

- Low-cost 3D printing solution for cobalt-chrome products.
- The final product using this process is comparable to the result achieved using traditional methods.

Potential Applications

- Dental implants
- Medical applications
- Gas turbine applications