

Abstract

A method for the powder-metallurgical production of a component from titanium or a titanium alloy is disclosed. In this method, following the customary procedure, first a green part is formed by using metal powder formed from titanium or the titanium alloy and is densified and compacted in a subsequent sintering step. What makes the method according to the invention special is that metal powder of titanium or the titanium alloy with an average grain size of $<25\text{ }\mu\text{m}$ is used for producing the green part and that the sintering step is carried out at a sintering temperature of up to a maximum of 1100°C for a sintering at a sintering duration of ≤ 5 hours in an atmosphere that is under a reduced pressure in comparison with normal pressure. These measures achieve the effect that the grain structure of the material obtained, and consequently also the material properties, can be selectively influenced.