THE ANALYSIS OF SOME FACTORS INDUCED THROUGH PRESSING WHICH INFLUENCE THE FATIGUE STRENGTH OF SINTERED MATERIALS

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Abstract: The behavior of the sintered powder metallic materials is unsuitable at variable stress because of their specific and complex structure, which is made from a powder particle mass and a pores ensemble. The pores, characterized by size, shape, location and orientation constitute genuine stress concentrators influencing the fatigue strength. Knowing that the porosity and the impurity distribution depend on the compaction conditions, we made a study of the compaction factors, which are presented in this paper.

References:

- 1. I.Vida-Simiti, Proprietati tehnologice in metalurgia pulberilor, Ed. Enciclopedica, Bucuresti (1990), p. 39-50.
- 2. H. Danninger, a.o., Microstructure and mechanical properties of sintered iron. Basic Considerations and rewiew of literature, Powder Metallurgy, vol. 25, no. 3, 1983.
- 3. L. Brandusan, a.o., Research of the fatigue behavior of the sintered metallic powder, Protocol at contract nr. 7003/97 CNCSU.
- 4. A. Palfalvi, Metalurgia pulberilor, Ed. Tehnica, Bucuresti (1988).