

METALLURGICAL COMPOSITION OF PARTICULATE MATERIALS, SELF-LUBRICATING SINTERED PRODUCT AND PROCESS FOR OBTAINING SELF-LUBRICATING SINTERED PRODUCTS

5

Abstract

The metallurgical composition comprises a main particulate metallic material, for example iron or nickel, and at least one alloy element for hardening the main metallic material, which form a structural matrix (10); a particulate solid lubricant (20), such as graphite, hexagonal boron nitride or mixture thereof; and a particulate alloy element which is capable of forming, during the sintering of the composition conformed by compaction or by injection molding, a liquid phase, agglomerating the solid lubricant (20) in discrete particles. The composition may comprise an alloy component to stabilize the alpha-iron matrix phase, during the sintering, in order to prevent the graphite solid lubricant from being solubilized in the iron. The invention further refers to a self-lubricating sintered product, obtained from the composition, and to the process for obtaining said product.

25 FIG. 4