

## CONTRIBUTIONS TO THE IMPROVEMENT THE NICKEL BRONZE GRAPHITE COMPOSITE MATERIALS FOR FRICTION APPLICATIONS

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**Abstract:** Bronze bearings are one of most used friction materials. In those applications where higher mechanical properties are needed, iron base bearings can be an alternative to bronze base materials, or other alloying elements added to bronze. The paper presents the results obtained in metal matrix composites field with friction characteristics, for automotive brakes, by P/M. The scope of these researches was the improvement of wear resistance and friction properties of metal matrix composites. Some new recipes on chemical composition of the materials were established with a view to obtaining phisico-mechanical and tribological properties in comparison with materials realized by firms having tradition on the field. Also, the recipes which were made took in consideration the present tendency achievement of ecological material without asbestos or other noxious elements usually used in brake pads.

**Key words:** Metal Matrix Composites; friction materials; ecological material