

INFLUENCE OF MECHANICAL PARAMETERS ON THE TRIBOLOGICAL AND THERMAL BEHAVIORS OF STEEL-COMPOSITE CARBONE/CARBONE COUPLE

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Abstract : The tribological and thermal behavior of dry sliding contact steel composite carbone/carbone and steel-organic matrix composites are studied according to the parameters normal load, sliding speed, friction coefficient and test time. In the case of automotive braking, using a mathematical model, the surface temperature of contact was determined. Four normal forces, four sliding speeds and four friction coefficients were applied in this study. These parameters have a significant influence on the variation of average contact temperature. The results illustrate the evolution of the contact temperature according to the braking time.

Keywords : Temperature, friction, steel, composite, Disc, Trim.