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ABSTRACT

NICKEL ALUMINIDE COATING AND COATING SYSTEMS FORMED THEREWITH

A protective overlay coating (24) for articles (10) used in hostile thermal environments, and particularly for use as a bond coat for a thermal barrier coating (26) deposited on the coating (24). The coating (24) is predominantly beta-phase NiAl into which a platinum-group metal is incorporated, yielding a coating system (20) capable of exhibiting improved spallation resistance as compared to prior bond coat materials containing platinum, must notably the platinum aluminide diffusion coatings. A preferred composition for the beta-phase NiAl overlay coating (24) further contains chromium and zirconium or hafnium.

(Figure 1)